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Humboldt National Forest Land and Resource Management Plan

United States
Department of
Agriculture

Appendices

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APPENDIX A

ISSUES, CONCERNS, AND OPPORTUNITIES

When the Humboldt National Forest first began the task of developing a Forest Land and Resource Management Plan, the Forest Management Team met to (1) compile a preliminary list of management issues and concerns, and (2) develop an orderly process for the solicitation and evaluation of the public's issues and concerns. A complete description of both items is located in the "Issues, Management Concerns, and Opportunities to be Addressed in the Forest Land and Resource Management Plan and Environmental Impact Statement," "Preliminary List of Issues on the Humboldt National Forest," and "Humboldt National Forest Addendum to ICO Package." These three reports are part of the planning record available for review at the Forest Supervisor's Office, Elko, Nevada.

A summary of process steps used to select public issues and management concerns follows:

STEP 1 - INFORMAL IDENTIFICATION OF PRELIMINARY ISSUES AND CONCERNS

In June 1979, an Ad Hoc Team for evaluation of issues, concerns, and opportunities was established with the following responsibilities:

1. Review the uncompiled issues list submitted by District Rangers and Supervisors Office (S.O.) staff and identify other issues; then consolidate into a single master listing for the Forest.

2. Conduct an evaluation which validates and prioritizes the issues, concerns, and opportunities. Key tests of validity were:

    a. Is it a conflict in management of resources?
    b. Can it be resolved without commitment of resources?
    c. Is it a current conflict?
    d. Can the Forest Plan adequately deal with the issue?
    e. Is it an issue from a higher administrative group?
    f. If unresolved, will it limit future management options?

3. "Scoping" of each of the issues, concerns, or opportunities. This involved a brief evaluation of the ICOs to determine the degree of significance, physical areas, extent of the problem, and a tentative procedure for resolving the problem.

4. Present recommendations to Forest Supervisor and District Rangers for their consideration before submitting to Regional Office (R.O.) for approval.

During July 1979, the District Rangers and S.O. staff began preparing a list of issues, concerns and opportunities. The sources for the preliminary issues were existing multiple use and unit management plans, public comments received during the RARE II inventory and evaluation process, and other public comments accepted at the Ranger Districts and S.O. about current management needs.

By the end of July 1979, the Ad Hoc Team had concluded an intitial review of the preliminary issues, concerns and opportunities compiled by the District Rangers and Supervisor's Office Staff. At this point, the District Rangers were asked to contact a cross-section of public leaders identified within their zone of influence. This limited initial round of public input validated the preliminary list of issues. Documentation of the contacts made by the District Rangers is included within the planning records on file at the Supervisor's Office in Elko, Nevada.

On August 15, 1979, the management issues and concerns, validated by the District Rangers based on their key contact lists, were presented to the Forest Supervisor. Within the documentation to the Forest Supervisor, the preliminary issues were grouped into general "themes." The issues were scoped for their extent, intensity, and duration. Each issue was scoped from both the national and local/statewide perspectives.

Also presented to the Forest Supervisor were the issues, concerns, opportunities and public comments excluded from the preliminary list. After the Forest Supervisor's review, the preliminary issues packet was distributed to the District Rangers and Supervisor's Office staff for evaluation. The results of the evaluation are contained within the planning records and available for review.

STEP 2 - DEVELOPMENT OF MAILING LIST

Before formal public involvement for ICO's, the Forest developed a mailing list. To develop this, a mailout with a detachable reply postcard was sent to individuals and firms doing business on National Forest System administered lands, those that expressed interest in the management of the Forest in the past, and groups who might be interested. A total of 350 responses were received from the original mailout, establishing the mailing list. The response cards and a copy of the mailout are part of the planning records on file at the Forest Supervisor's Office in Elko, Nevada.

STEP 3 - FORMAL PUBLIC ISSUES DEVELOPMENT

During the summer of 1980, in the initial attempt to establish a formal preliminary list of public issues, a Forest Briefing Guide was developed and mailed to each person or organization on the mailing list. Over 500 copies were mailed out. The Briefing Guide was designed to substantiate the various public's knowledge of both the Humboldt National Forest and its planning process. The Guide was broken down into the following five sections:

1. Introduction to the planning process.
2. Planning process steps.
3. Criteria for issue identification.
4. Where are we today (overview of the Forest by resource area)?
5. A response form.

The response form was created to provide the public an opportunity to define and explain their issues, as well as suggest an avenue for resolution. A copy of the Briefing Guide is on file as part of the planning records in Elko, Nevada.

Prior to the distribution of the Briefing Guide, the Forest Supervisor sent out a news release announcing the start of the Land Management Plan by the Forest. The release notified persons that they should sign up on the Forest's mailing list to receive a copy of the Briefing Guide. It also announced that the Forest would be conducting a series of public meetings.

Starting in June 1980, a series of Open Houses or Open Meetings were held, allowing individuals and/or organizations to provide their issues and concerns. Sixty-two people attended the meetings. A news release in the local newspapers preceded each open house. A Notice of Intent to prepare an Environmental Impact Statement for the Humboldt National Forest Plan was published in the Federal Register. The Nevada State Clearinghouse, which notifies all state agencies, was notified of the Forest's planning effort.

From the respondents to the Briefing Guide and people at the public meetings, 99 replies were received. From those replies, 562 individual issues statements were identified. All of the responses are included within the Forest's planning records.

STEP 4 - ORGANIZING AND SCREENING PUBLIC COMMENTS RELATED TO ISSUES

Once the public issues and management concerns were identified, they were analyzed using the criteria set forth FSM 1920.82. Essentially, all identified issues and concerns had to undergo some type of evaluative action. The issues work team screened each general issue using the following criteria:

> Screen 1 - SCOPE: Does the issue pertain to the Humboldt National Forest, or is it influenced by activities on other Forests?
>
> Screen 2 - DURATION: Will the issue continue after July 1983? Issues or concerns that will be resolved prior to that time are considered short term and will not be included in the Forest Plan.
>
> Screen 3 - JURISDICTION/RESOLVABILITY: Can the issue be resolved within the authority of the Humboldt National Forest, or is it under the jurisdiction of another agency? Do current knowledge and required laws and regulations already address and resolve the issue?
>
> Screen 4 - STATUS: Does the issue require additional analysis under the regulations required in the National Environmental Policy Act and the National Forest Management Act?

These screening criteria were designed so that any "no" answer was an indicator that the issue could not be dealt with in the Forest Plan. An issue that fell within the authority of another agency was sent to that agency. Comments judged illogical for the Forest planning process, such as "analyze the effects of sagebrush rebellion," were dropped from consideration. (A list of the initial General Public Issues is located within the planning records on file at the Supervisor's Office, Elko, Nevada.)

STEP 5 - DEVELOPMENT OF GENERAL PUBLIC ISSUES

To make the analysis of issues more simple and less bulky, the 562 individual issue statements were evaluated using a matrix system to code each part. They were grouped under common statements. The common statement groups (seventeen in all) were put into similar categories. Table A-1 is a list of the common statement groups. The bulk of the individual responses dealt with either wilderness or wildlife as shown in Table A-1. The common statement groups were used as a foundation from which the general planning problems were formed.

TABLE A-1

The number of responses and the ranking of the responses for the Common Statement Groups on the Humboldt National Forest.

COMMON STATEMENT GROUPS	NUMBER OF RESPONSES
Wilderness	109
Wildlife	83
Mining	67
Range	63
Off-Road Vehicles	45
Facilities	38
Fuelwoods	36
Lands	35
Fire	24
Water and Soil	23
Rights-of-way	19
Recreation	17
Special Areas	13
Communication	5
Riparian Areas	5
MX Missle *	3
Christmas trees	1

* The MX Missile System is no longer a viable proposal within the State of Nevada. This statement group will no longer be considered in this planning process.

STEP 6 - SELECTION OF TENTATIVE MAJOR PLANNING PROBLEMS

In an attempt to determine which of the general ICO's were most important, the issues work team applied an additional screening process using the following criteria:

1. Intensity: How much interest is shown? Is this a popular or well-known issue? Did people indicate a real concern about the problem or was it a "by the way..." type of statement?

2. Consequence: What are the consequences of foregoing action on this issue? Will the lack of action result in a loss of options in the near future? Is a resource disappearing or an activity getting more expensive?

3. Potential for Conflict: Are there strong feelings on both sides of the issue? Could a win or lose situation develop? Will resolution of the issue result in significant controversy?

After applying these criteria, it was determined that of the seventeen issues expressed, nine should be considered "MAJOR." The nine major planning problems were:

1. Resolve the wilderness/nonwilderness questions for roadless areas on the Humboldt National Forest.
2. How should the Forest manage wildlife habitat?
3. How should the Forest manage its mineral management program?
4. How should the Forest manage the grazing resources?
5. How should the Forest manage off-road vehicles?
6. How should the Forest manage the water resource program?
7. How and where should the Forest provide public access?
8. How should special interest areas be managed on the Forest?
9. How should the Forest manage riparian zones?

Four statement groups (Facilities, Fuelwood, Fire and Christmas trees) were combined, forming a minor planning problems group. This group was not discussed within the section on final major planning problems, although it is included as part of each alternative. The group was not incorporated into the process used to evaluate the alternatives because the issues were not "polarized." A concern existed for better management for these issues, but no one expressed differing views on achieving the best management. Although this minor group is an important part of the alternatives, it did not "drive" the alternatives within steps of the planning process. Being noncompetitive, these issues were not part of the tradeoff evaluation process.

In September 1981, the Forest initiated another round of public invovlement. The involvement was separated into two general areas. One area sought to validate the major planning problems by asking the following questions:

1. Do you think we have missed a general issue? If so, what is it?
2. If you do not agree with our selection of major planning problems, which one(s) do you think should be deleted or added? Why?
3. Do you feel our selection criteria for both the general and major issues were adequate? If not, what criteria would you add or delete?

The other area strived to reach agreement on the preliminary decision criteria for the preferred alternative. Twenty-two responses were received during this public involvement phase. No changes were suggested to the major planning problems. Both the information packet and the responses are on file at the Supervisor's Office, as part of the planning records.

STEP 7 - ROADLESS AREA REEVALUATION PUBLIC INVOLVEMENT

Additional public involvement was initiated in July 1983, to aid in resolution of the roadless area reevaluation process. Prior to this, forest planning had examined a broad range of uses for roadless areas but had not included an evaluation for wilderness designation except for Jarbidge and the Ruby Mountains.

The Humboldt and Toiyabe National Forests sent a similar letter to their publics explaining that each Forest was updating the inventories of undeveloped areas. The completed inventories were made available to the public.

In August 1983, the Humboldt National Forest prepared a revised Public Involvement Plan to ensure the public was properly informed and involved in the Forest planning process. In September, a revised Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register. The notice extended the comment period until October 30, 1983. Both the revised Public Involvement Plan and Notice of Intent to prepare an Environmental Impact Statement are part of the planning records on file in Elko, Nevada.

To ensure and facilitate public involvement within the State of Nevada during the roadless area reevaluation, the Toiyabe National Forest prepared a state-wide Public Involvement Plan.

A second news release was sent to local newspapers inviting the public to attend open houses to be held at each Ranger District and the Supervisor's Office. During these open houses, the public was asked to do three things:

1. Review the roadless areas written descriptions for accuracy.
2. Comment on any key resource issues or values they might have regarding each roadless area.
3. Tell how they felt the areas should be managed.

The Forest received 35 responses. The public input received by the Humboldt National Forest during the roadless area reevaluation process indicated no discernible shifts in attitudes or opinions from those originally stated during the RARE II process.

B. CONSULTATION PROCESS

Nevada State Legislature

Briefings have been made, in conjunction with the Toiyabe National Forest, to the Legislative Subcommittee on Public Lands Dealing with Roadless Area Reevaluation.

Consultation With Others

The Toiyabe and Las Vegas Chapters of the Sierra Club, the Nevada Cattleman's Association, Nevada Wildlife Society, Nevada Prospectors Association, Fort McDermott Inter-Tribal Council, Duck Valley Indian Reservation, and the Te-Moak Tribe were all contacted at the initial phase of planning or issue identification, the roadless area reevaluation, and review of the DEIS and Proposed Plan. These contacts included mailings, special meetings and briefings, and workshops. Contact was also made with Bureau of Indian Affairs, Eastern Nevada Agency at Elko, Nevada in order to ensure proper distribution of planning documents to each Indian tribe impacted by the Proposed Plan.

The following agencies and Indian tribes are on the Forest Plan mailing list. They were sent copies of the Briefing Guides and notification of any meetings or open houses held during the planning process:

Arizona Water Commission, Phoenix, Arizona
Bureau of Indian Affairs, Elko, Nevada
Bureau of Land Management, Elko, Nevada
Bureau of Land Management, Ely, Nevada
Bureau of Land Management, Tonopah, Nevada
Bureau of Land Management, Boise, Idaho
Bureau of Land Management, Las Vega, Nevada
Bureau of Land Management, Reno, Nevada
Carlin Chamber of Commerce, Carlin, Nevada
Colorado River Board, Los Angeles, California
Colorado Water Conservation Board, Denver, Colorado
Cooperative Extension Service, Elko, Nevada
Cooperative Extension Service, Ely, Nevada
Cooperative Extension Service, Winnemucca, Nevada
Department of Health, Education, Welfare and Center for Disease Control,
    Atlanta, Georgia
Duck Valley Indian Reservation, Owyhee, Nevada
Ely City Council, Ely, Nevada
Elko County Sheriff, Elko, Nevada
Elko County Game Board, Elko, Nevada
Environmental Protection Agency, San Francisco, California
Farmers Home Administration, Elko, Nevada
Farmers Home Administration, Winnemucca, Nevada
Federal Energy Regulatory Commission, Washington, DC
Federal Aviation Administration, Elko, Nevada
Humboldt County Commission, Winnemucca, Nevada
Humboldt County Sheriff, Winnemucca, Nevada
Idaho Fish and Game, Buhl, Idaho
McDermitt Tribal Council, McDermitt, Nevada
Nevada Bureau of Mines and Geology, Reno, Nevada
Nevada Bureau of Environmental Health, Carson City, Nevada
Nevada Department of Agriculture, Winnemucca, Nevada
Nevada Department of Conservation and Natural Resources, Carson City, Nevada
Nevada Department of Environmetnal Protection, Carson City, Nevada
Nevada Department of Highways, Elko, Nevada
Nevada Department of Transportation, Carson City, Nevada
Nevada Department of Wildlife, Ely, Nevada
Nevada Department of Wildlife, Eureka, Nevada

Nevada Department of Wildlife, Las Vegas, Nevada
Nevada Department of Wildlife, Reno, Nevada
Nevada Department of Wildlife, Wells, Nevada
Nevada Divison of Forestry, Carson City, Nevada
Nevada Divison of Forestry, Elko, Nevada
Nevada Indian Agency, Stewart, Nevada
Nevada Inter-Tribal Council, Reno, Nevada
Nevada State Attorney General's Office, Carson City, Nevada
Nevada State Historic Preservation Office, Carson City, Nevada
Nevada State Parks Department, Carson City, Nevada
Nevada State Parks System, Las Vegas, Nevada
Nevada State Soil Conservation Committee, Fernly, Nevada
Nevada State Division of Water Resources, Carson City, Nevada
Nevada Youth Authority Board, Las Vegas, Nevada
Ruby Valley Soil Conservation District, Wells, Nevada
Te-Moke Tribe, Elko, Nevada
USDA Agriculture Stabilization and Conservation Service, Elko, Nevada
USDA Science and Education Administration, Washington D.C.
USDA Soil Conservation Service, East Ely, Nevada
USDA Soil Conservation Service, Reno, Nevada
USDA Soil Conservation Service, Wells, Nevada
USDI Geological Survey, Menlo Park, California
USDI Geological Survey, Carson City, Nevada
USDI Bureau of Reclamation
USDI Fish and Wildlife Service, Reno, Nevada
USDI Fish and Wildlife Service, Ely, Nevada
USDI National Park Service, Baker, Nevada
Utah Division of Water Resources, Salt Lake City, Utah
Wells Chamber of Commerce, Wells, Nevada
White Pine County Commission, Ely, Nevada
White Pine Chamber of Commerce, Ely, Nevada
White Pine Game Board, Ely, Nevada
City of Winnemucca, Winnemucca, Nevada

REVIEW OF PLANS FROM OTHER AGENCIES

State of Nevada, Division of State Lands, Federal Land Mangement Plans for Humboldt, Elko, White Pine, Nye and Lincoln Counties.

> Purpose is to "prepare, in cooperation with the appropriate state agencies and local governments throughout the state, plans or policy statements concerning the use of lands in Nevada which are under federal management."

State of Nevada - State Environmental Protection Agency. State implementation plan for air quality.

> Purpose is to determine through coordination with other state and federal agencies the current status and quality levels for air within the state.

USDI Bureau of Land Management, Elko District, Wells and Elko Resource Management Plans and Environmental Impact Statements.

Purpose "is to improve the resources of the resource areas which would result in increased goods and services to the public land users and general public."

USDI Bureau of Land Management Ely District, Schell and Egan Resource Management Plans and Environmental Impact Statements.

Purpose same as the Wells and Elko RMP/EIS.

The Management Team reviewed the plans to ensure agreement with the Preferred Alternative.

Other Non-Agency Consultations

Group: Nevada Mining Association

Contact: Discussion about the roadless area reevaluation process, which areas should or should not be considered as wilderness and why and the configuration of a State Wilderness Bill for Nevada.

Group: Nevada Cattleman's Association

Contact: Discussions about the roadless area reevaluation process, which areas should or should not be considered as wilderness and why; the configuration of a State Wilderness Bill for Nevada.

Group: Nevada Department of Wildlife

Contact: Discussions about wildlife population trends, wildlife values, habitat improvement, implications of other resource programs on wildlife and management indicator species; the roadless area reevaluation process and alternative formulation and environmental consequences of implementing the Preferred Alternative.

Group: Sierra Club, Toiyabe Chapter

Contact: Discussion about the roadless area reevaluation process, which areas should or should not be considered as wilderness and why, and the configuration of a State Wilderness Bill for Nevada.

C. FINAL MAJOR PLANNING PROBLEMS

Nine major planning problems, derived from the 17 common statement groups, were selected to be addressed in the Humboldt National Forest Land and Resource Management Plan. Below are listed the nine competitive planning problems. All nine are treated in the same manner in all the alternatives through a variety of standards and guidelines. No issues are treated the same through all alternatives.

After the nine planning problems were finalized and put into the alternatives, the team used the tradeoff evaluation process (TEP) to determine what alternatives best resolved the issuse. TEP, does this by comparing and weighing the advantages of the differences of issues (planning problem) resolutions between alternatives. Records of this process may be found in the planning records at the Supervisor's Office.

Planning Problem 1 - Resolve the wilderness/nonwilderness question for all roadless areas on the Humboldt National Forest.

Situation

There is only one designated wilderness area within the State of Nevada: the 64,667 acre Jarbidge Wilderness, established by the Wilderness Act of 1964. The Act also required Federal land agencies to inventory and review other roadless areas for wilderness quality and potential wilderness classification. The Roadless Area Review and Evaluation (RARE) I and II inventories accomplished this. Two areas on the Quinn Division, a portion of the Ruby Mountain Scenic Area, and a number of small additions to the existing Jarbidge Wilderness were proposed for further study. Other areas were dropped from further consideration.

Based on the Ninth Circuit Court of Appeals decision that found major deficiencies in the RARE II FEIS, the Assistant Secretary of Agriculture announced all undeveloped National Forest System administered lands would be subject to a roadless area reevaluation again. In total, 54 roadless areas were reconsidered for wilderness within the Forest Plan.

The public was heavily involved during the review process. Wilderness is a concern to many publics because they either want to see part of the disappearing American Heritage preserved or feel it will lock up needed resources. The public is equally divided between those wanting more wilderness and those opposed. This is an issue people feel deeply about.

Primary Issue Areas:

A. Need more or no more wilderness.
B. Need more or fewer trails.
C. Need to protect wildlands.

Public Concerns:

A. Recommend wilderness for Quinn Range.
Recommend wilderness for Grant Range.
Recommend wilderness for Currant Mountain.
Recommend wilderness for Highland Ridge.
Recommend wilderness for Wheeler Peak.
Recommend wilderness for Mount Moriah.
Recommend wilderness for Schell Creek Range.
Recommend wilderness for Ruby Mountains.
Recommend wilderness for Jarbidge additions.
Recommend wilderness for Pearl Peak.
Recommend wilderness for East Humboldt.
Recommend wilderness for Copper Mountain.
Recommend wilderness for Santa Rosa.

Consider no other areas on the Forest for wilderness.

Too much wilderness.

Keep the status quo.

B. No more trails in wilderness.
Need more trails.

C. Give adequate consideration to maintaining wildlands.
Promote public awareness of good wilderness protective practices.
Maintain protective management during study of all wilderness study areas.
Protect wilderness values in wilderness study areas.

Scope - This issue is Forest-wide. It is of concern to the public from a large area surrounding the Forest.

Intensity - High relationship to the total responses. This issue received the most public comments. Intensity will remain high until the question is resolved.

Duration - This issue will continue until the disposition of the roadless areas are made through the land management process, Congress or the courts.

Consequences - Until this is resolved, the issue will delay development. It has potential to stop all development except in recreation.

Potential for conflict - This issue has a high degree of conflict, and it has been determined a major issue.

Planning Problem 2 - How should the Humboldt National Forest manage wildlife habitat?

Situation

Much public interest is directed toward wildlife in Nevada and in several western states. The Humboldt National Forest provides diverse habitat for numerous species of fish and wildlife. Hunting, fishing, trapping, and nonconsumptive appreciation of wildlife on the Forest is a major resource use. Several important game species are either totally or largely dependent on the National Forest System administered lands for their existence. Future management on these lands will strongly influence population trends of several game species and numerous nongame species. Future grazing management will have the largest overall influence on wildlife populations. Mining and a host of other activities will also influence wildlife habitat and population trends.

Primary Issue Areas:

A. Reduce competition from livestock grazing and other resource uses for the benefit of wildlife habitat.
B. Protect riparian areas and other important or sensitive wildlife habitats.
C. Desire/do-not desire the reintroduction of native wildlife.
D. Need better cooperation among agencies and resource users.

Public Concerns

A. Competition with livestock grazing and other resource uses.
Protect wildlife habitat from grazing.

Protect wildlife habitat from mining.
Wildlife and livestock should be given consideration for forage.
Keep present policy for restoring rangeland.
Do not reduce livestock numbers due to increases in wildlife.
Wildlife should be given priority over livestock for grazing.
Forage allocation should be made allotment by allotment.
Exclude domestic sheep from bighorn sheep areas.
Present policy is wrong in livestock/wildlife competition.
Need vegetative type conversion for wildlife.
Protect wildlife from ORV's.

B. Protect riparian and other sensitive or key wildlife areas.
Fence riparian areas.
Remove damaging roads from riparian areas.
Need better control of grazing in riparian areas.
Protect aspen rejuvenation from livestock.
Protect key wildlife habitat.
Establish zoological areas for bighorn sheep.
Protect cavity nesting birds over fuelwood.
Protect habitat of threatened and endangered (T&E) species.
Protect key big game habitat from livestock and development.
Keep watering facilities out of meadows.

C. Reintroduce native wildlife.
Reintroduce elk and bighorn sheep.
Do not reintroduce elk and bighorn sheep.
Exclude domestic sheep from proposed reintroduction areas (bighorn sheep).

D. Cooperation needed.
Interagency coordination is needed.
Wildlife should be given more emphasis on ID team.

Management Concern - Habitat protection for the Lahontan cutthroat trout has the potential for negatively affecting other resource management activities.

Scope - This issue is Forestwide. There were responses from many parts of Nevada and a few from out of the State.

Intensity - The issue was second in the amount of public concern expressed. Interest is high in agencies, groups, and individuals.

Duration - An ongoing issue.

Consequences - Unless this issue is resolved it will tend to delay or slow some development on some T & E species and wildlife fish species may experience population declines.

Potential for Conflict - This issue shows a high degree of potential conflict.

Planning Problem 3 - How should the Humboldt National Forest manage its minerals management program?

Situation

Mining has historically been a major industry in Nevada. The public is split between those generally pro mining and the status quo and those opposed. Those opposed are alarmed by the fact that mining and energy development has increased at an exponential rate over the past few years. They are aware of past disturbance that showed little regard for the environment. The pro-mining groups feel that, with the new surface mining regulations, they can mitigate most environmental concerns and that additional restrictions are unwarranted.

Primary Issue Areas:

A. Need more rehabilitation.
B. Need more/less/same amount of access.
C. Emphasize mining in planning.
D. Other resources need more consideration in mining management.

Public Concerns

A. More emphasis on rehabilitation.
More emphasis on adequate bonding.
Include mitigation.
Allow oil and gas exploration in an environmentally sound manner.

B. Allow only minimally destructive forms of access.
Alternate means of access should be considered.
Continue mineral access into roadless areas.
Do not restrict access for mining operations.

C. Continue present minerals policy.
Need better cooperation and communication with miners.
Give mineral potential high priority in Land Management Planning.

D. Need more control of miners and more protection for wildlife and habitat.
Consider recreation needs in mineral management.
Oil and gas shouldn't have precedence over other resources.

Management Concerns - Can we maintain land productivity for other uses while being more responsive to mining operators?

Scope - This issue is Forest-wide. Interest exists state-wide and in several areas out of state.

Intensity - The issue ranked third in public concern. Interest is high among groups interested in developing these resources and among groups concerned with the impacts of mining activities on other resources.

Duration - Ongoing.

Consequences - This issue must be resolved or appeals will increase and impacts upon use of renewable resources will increase.

Potential for Conflict - This issue shows a high degree of potential conflict.

Planning Problem 4 - How should the Humboldt National Forest manage the grazing resources?

Situation

The grazing of livestock on the Humboldt National Forest is a major resource use. Almost all the permittees are dependent on Federal range to round out their ranching operations. Approximately 54,000 head of cattle and 79,500 sheep annually graze on National Forest lands for 300,000 AUM's. The local ranching economy is strongly influenced by actions taken on the Federal lands. Future actions taken to emphasize wilderness, special areas or riparian protection will further impact the livestock industry.

Primary Issue Areas:

A. Establish proper stocking rates.
B. Use range improvements to reduce conflicts.
C. Livestock conflict with other resource areas.
D. Maintain thriving ranching economies.

Public Concern:

A. Allocation of forage.
Do not eliminate livestock grazing.
Maintain present stocking rate.
Emphasize multiple use management.
Eliminate domestic sheep grazing in favor of bighorn sheep or elk.
Too much dead forage is a fire hazard.
Allow sufficient forage and habitat (riparian) for wildlife.
Evaluate range carrying capacity and make necessary adjustments.

B. Need range improvements.
Consider air quality standards in range revegetation projects.
Increase livestock carrying capacity where it is economical to do so with range improvements.
Plan range improvements to benefit wildlife.
Request more money for range improvement.
No range improvement for livestock production use except to restore deteriorated lands.
Consider effects of range improvement on wildlife.
Coordinate management of livestock and range improvements with adjacent federal lands.

C. There is a conflict with other resources.
Need to maintain plant and animal diversity.
Favor wildlife in conflicts with grazing.
Minimize conflict between recreation and livestock in favor of livestock.
Minimize conflict between recreation and livestock grazing in favor of recreation.
Grazing can be detrimental to wildlife habitat.

D. Consider social economics.
   Maximize present net worth regardless of resource.
   Increase red meat supply.
   Stabilize the local ranching economy.

Scope - Forestwide. Livestock are grazed on each Ranger District.

Intensity - This issue ranked fourth in public concern. It is expected to remain at a high level of intensity.

Duration - Ongoing.

Consequences - Unless this issue is resolved, it could cause an irreversible impact to Forest grazing permittees or to wildlife/recreation users.

Potential for Conflict - This issue has a high potential for conflict.

Planning Problem 5 - How should the Humboldt National Forest manage off road vehicles (ORVs)?

Situation

ORV use is increasing on the Forest, with most of this use by people living close to the Forest. ORV users would like more ORV facilities and fewer restrictions.

Present restricted areas are mainly confined to the Jarbidge Wilderness, Ruby Mountains Scenic Area, Wheeler Peak Scenic Area, and municipal watersheds. A few small areas where damage has occurred or has potential for occurring, are also closed. Other users of the Forest are concerned about the damage caused by ORV's (excessive noise and disruptive to wildlife populations and solitude). As use continues to increase, the potential for conflict with other users (i.e., hikers, cross-country skiers) and other resources will increase.

Primary Issue Areas:

A. Provide more ORV facilities.
B. Need less restrictive management.
C. Need more restrictive management.
D. Continue existing policy.

Public Concerns:

A. Identify a network of ORV trails.
   Use signs to explain closures.
   Groom trails for snowmobiles.
   Provide parking areas for snowmobile users.
   Provide portable toilets at high use areas.

B. Don't restrict snowmobiles in Lamoille Canyon - Liberty Pass.
   Keep Jarbidge area less restrictive to ORV's.
   Restrict use only where damage occurs.
   Do not restrict snowmobile use.
   Use management techniques to minimize damage and maximize use.

C. Issue permits during periods of soft roads.
   Close roads when soft.
   Identify a network of nonmotorized trails.
   Keep vehicles on designated roads and trails.
   Keep ORV's and snowmobiles from extending into sensitive areas (riparian, wildlife).
   Increase policing of ORV's.
   Organized ORV events should not occur on National Forest administered lands.

D. Continue existing policy.

Scope - Forest-wide. Most comments were received from people adjacent to the Forest.

Intensity - Interest in this issue is high both among user groups and those groups concerned with other resources, especially nonmotorized recreation, soil-water, and wildlife advocates.

Duration - Ongoing.

Consequences - Some areas might continue to suffer impacts to the soil resources, wildlife and nonmotorized recreation. ORV users may be unneccessarily restricted in some areas.

Potential for Conflict - This issue has a high potential for conflict.

Planning Problem 6 - How should the Humboldt National Forest manage the water resource program?

Situation

The people of Nevada and the nation are concerned about the soil and water resources on the National Forests. They recognize that ORV and mining activities have impacted these resources and they expect the Forest to establish an acceptable level of impact and manage use accordingly. State agencies and the public are concerned for the riparian lands and water sources important for the wildlife population that depends on National Forest administered lands. The local ranchers are also concerned with government acquiring water rights and interfering with their rights to file for water rights with the state.

Primary Issue Areas:

A. Water rights should be given to individuals or to the Forest Service.
B. Watershed protection needs to be considered more.

Public Concerns

A. Priority for water filings should be for wildlife, recreation, and grazing.
   Priority for water should be for wildlife, livestock, recreation, and other.
   Recognize state water rights.

Water rights filings should be for multiple use purposes.
Water rights for Forest Service should be given low priority.

B. Springs and seeps should be developed for livestock to allow water at the source.
Need inventory and protective measures against soil loss.
Need erosion control and effects on water quality (good watershed management).
Maintain mesic habitats.
Minimize impacts of ORVs to water and soil.
Need watershed protection of riparian stream and fisheries habitat.

Management Concern - Future constraints imposed on water rights filing may negatively affect multiple use management of the Humboldt National Forest.

Scope - Forest-wide.

Intensity - This issue was ninth in the number of public responses.

Duration - Ongoing.

Consequences - Failure to resolve this issue could cause serious resource multiple use management problems.

Potential for Conflict - This issue has a high potential for conflict.

Planning Problem 7 - How and where should the Humboldt National Forest provide public access?

Situation

Much of the Humboldt National Forest is surrounded by large private land holdings which prevent public access in some areas, especially on the Ruby Mountains District. Users of the Forest, especially hunters and fishermen, are concerned when they find locked gates that prevent them from reaching public lands. They see a few private landowners making a profit by leasing their land to the hunting clubs and, in essence, "selling" use of the adjacent public lands. Private landowner resistance to granting rights-of-way and low funding of this program have prevented progress in resolving this concern.

Primary Issue Area:

A. More/less access points are needed for reaching public lands.

Public Concerns:

A. Need to improve access to public lands.
Access is needed to the Ruby Mountains.
Access is needed to the North Humboldt Division.
Improved signing is needed to identify legal access.
Minimally destructive forms of access should be used.
Eliminate undesirable access points.
Do not establish new access points.

Scope - This issue is limited to the Santa Rosa, Ruby and Mountain City Ranger Districts.

Intensity - This issue was eleventh in the number of public comments received. State wildlife agency and hunters and fishermen were most concerned about this issue.

Duration - Ongoing.

Consequences - Failure to resolve this issue will cause continued conflict between private landowners and the hunting and fishing public.

Potential for Conflict - This issue as a high potential for conflict.

Planning Problem 8 - How should the Humboldt National Forest manage areas of special interest?

Situation

The Humboldt National Forest has several mountain ranges, varying in elevation from 4,500 feet to over 10,000 feet in the Great Basin, that represent many different unique biomes. Some scientists, along with the public, have expressed an interest in establishing Research Natural Areas to study endemic plant species in the Great Basin. In addition, the Humboldt National Forest has had a lot of mineral development in the past, resulting in mining camps and towns scattered throughout the area. A wealth of history about these ghost towns exists, and some of the public have expressed a need to protect representative structures from this early mining era.

Primary Issue Areas:

A. Research Natural Areas need to be established.
B. Historical mining sites need to be identified.

Public Concerns

A. Need more special area designations.
Need more emphasis on Research Natural Areas.
Fence special areas for protection where cost effective.
Establish a bighorn zoological area.

B. Protect historic mining areas.

Scope - Forest-wide. Most of the comments on this issue came from out of state and western Nevada.

Intensity - This issue was thirteenth in public concern.

Consequences - Possible loss of integrity of unique areas of vegetation, geology, wildlife, and history. Possible loss of areas designated "special" to other multiple uses and management restrictions.

Potential for Conflicts - This has a high potential for conflict.

Planning Problem 9 - How should the Humboldt National Forest manage riparian zones?

Situation

Riparian areas are of utmost importance in Nevada. These areas are especially sensitive because of the dry climate and the demands wildlife and livestock place upon them. There are 74,000 acres of riparian habitat classifed on the Humboldt National Forest. These areas have been heavily impacted in the past by mining, livestock grazing, and road building. The public has indicated a lot of support for improved management practices in riparian zones and for preventing further degradation.

Primary Issue Area / Public Concerns

A. Protect riparian areas from cattle damage and development activities through better land management practices.

Management Concerns - Heavy use of the riparian zones is having a negative effect on the plant community.

Scope - Forest-wide.

Intensity - This issue was fifteenth in number of public comments received.

Duration - Ongoing.

Consequences - Unless this issue is resolved it could have an impact on other renewable resources. It could also delay some developments.

Potential for Conflict - This issue has a high potential for conflict, especially between ranchers and wildlife advocates.

Appendix B

APPENDIX B

DESCRIPTION OF ANALYSIS PROCESS

I. Introduction

A. Planning Problem

The Forest Service is responsible for determining how best to manage National Forest lands based on public desires and land capabilities. The capability of the Humboldt National Forest is directly related to its expansive diverse setting. On some areas of the Forest, water is the primary influence to capability; while other areas are influenced by the short growing season; and still other areas are dominated by the exaggerated topography. The Forest currently has one Wilderness Area (Jarbidge). However, over half of the remainder of the Forest has been identified as roadless. The status of these lands (i.e. whether they will be managed as wilderness or nonwilderness) will be determined through the Forest planning process. The Forest provides numerous opportunities for developed and dispersed recreational uses, multispecies hunting and fishing; harvesting woodland products both commercially and for personal use; grazing by both domestic livestock and wild free-roaming horses. There is a dependent heli-ski industry, as well as numerous dependent livestock permittees.

Public interest includes divergent viewpoints about the use of commodities such as grazing and minerals and noncommodities such as wilderness, unroaded recreation and wildlife. The Forest's major planning goal is to provide enough information to help the responsible officials (i.e. District Rangers, Forest Supervisor, Regional Foresters and Chief of the Forest Service) determine which combination of goods, services and land allocations will maximize net public benefit. The National Forest Management Act (NFMA) and the regulations developed under NFMA (36 CFR 219) provide the analytical framework to address this objective, and also state that the requirements of the National Environmental Policy Act (NEPA) and its regulations (40 CFR 1500-1508) must be applied in this analysis process.

B. Planning Process

Planners from the Humboldt National Forest are using mathematical modeling techniques to reduce the magnitude of long range planning for multiple resources on a diverse land base. A linear program (VERSION II FORPLAN) is being used to represent components of the Humboldt National Forest and help identify the most cost-efficient pattern of land management. The NFMA relations (36 CFR 219.12) describe a ten-step planning process to be used in the preparation of a Forest Plan. These steps are listed below for information:

1. Identification of Purpose and Need
2. Development of Planning Criteria
3. Inventory Data and Information Collection
4. Analysis of the Management Situation
5. Formulation of Alternatives
6. Estimated Effects of Alternatives
7. Evaluation of Alternatives

8. Preferred Alternative Recommendation
9. Plan Approval
10. Monitoring and Evaluation

Appendix B describes the analysis phase of ths process including steps 3, 4, 5, and 6. The judgment phase, steps 1, 2, 7, and 8 is described in Chapters I, II, and Appendix A of the EIS. The execution phase, steps 9 and 10, is presented in the proposed Forest Plan.

The following is a brief discussion on the ten-step planning process:

1. Identification of purpose and need. Through public participation including contacts with other Federal agencies, state and local governments, and contacts with a local Indian tribe, the Forest Interdisciplinary Team identified public issues, management concerns, and resource opportunitites. These were evaluated and recommended to the Forest Supervisor who determined which were the major public issues, management concerns, and resource opportunities that would be addressed in the planning process.

2. Development of planning criteria. Based on the selected issues, concerns, and opportunities, the Forest Management Team developed criteria to direct the collection and use of inventory data, analysis of the management situation, and the design, formulation, and evaluation of alternatives.

3. Inventory Data and Information Collection. The Interdisciplinary Team made a determination of what data was needed based on the identified Issues, Concerns, and Opportunities. Most data requirements fit into one of the following categories: resource capabilities, demands, benefits and costs. Existing data was used whenever possible, however some supplemental information was developed to fill information gaps.

4. Analysis of the Management Situation. A simplified definition of this step is that it is a determination of the Forest's capability to provide the goods and services (supply) that comprise the public needs and desires (demand). The FORPLAN linear programming model was used at this stage to meet several specific requirements and also to define the feasible parameters (benchmarks) for production of several of the resource outputs; timber, water, and livestock forage. The specific requirements noted above include: (a) determining the maximum present net worth (PNW) the Forest can generate; (b) projecting the current management program; (c) evaluating the feasibility of meeting national production goals as expressed by the Resource Planning Act (RPA) targets; and (d) displaying the minimum costs necessary to retain the lands in the National Forest System; and (e) providing a basis for formulating a broad range of reasonable alternatives.

5. Formulation of Alternatives. The AMS (Step 4) sets the stage for developing a range of alternative management plans for the Forest. This range of alternatives is within the resource capability parameters established in the benchmarks in the AMS. Public issues, management concerns and opportunities are reflected in the formulation of alternatives as well as several specific alternative requirements:

(a) Alternatives were formulated to reflect a range of resource outputs and expenditure levels. The range of resource outputs, however, was restricted by their maximum and minimum potentials as determined by benchmark analysis.

(b) All alternatives were formulated to facilitate analysis of opportunity costs, environmental tradeoffs, and the effects on present net value, benefits and costs.

(c) Alternatives were formulated to provide different ways to address major public issues, management concerns, and resource opportunities identified during the planning process. Also reasonable alternatives which may require a change in existing law or policy were considered.

(d) The RPA Program tentative resource objectives for the Humboldt National Forest were included in an alternative.

(e) Each alternative was formulated so as to be the most cost efficient combination of management prescriptions examined to meet the objectives of the alternative.

(f) The current program projected through time would be used to display costs and benefits of no change. This is the No Action Alternative.

(g) The current budget was used to determine the flow of goods and services under a constant budget at current levels.

(h) Each area inventoried as a part of the roadless area reevaluation would be displayed as wilderness in at least one alternative.

(i) A reduced budget alternative was developed to display the costs, the benefits, and the flow of goods and services which could be provided if the budget were held to 75 percent of current.

(j) Other alternatives were included to emphasize commodity production and amenity (non-market) production.

6. Estimation of Effects of Alternatives. The physical biological, social, and economic effects of implementing each alternative were estimated and analyzed to determine how the alternative meets the various goals and objectives, how the alternative responds to the public issues and management concerns, and how each alternative compares to the other alternatives. The output levels, benefits, and costs were generated through the use of the FORPLAN model.

7. Evaluation of Alternatives. Using the previously selected planning criteria, the Interdisciplinary Team evaluated the significant physical, biological, economic, and social effects of each of the eleven alternatives considered in detail. The evaluation was based on a comparative analysis of the Forest-wide effects of the

management alternatives including present net value, social and economic effects, outputs of goods and service, and overall condition of environmental resources. The analysis was done in a systematic manner that documented each step of the evaluation.

8. Preferred Alternative Recommendation. Using the evaluation described in the previous step, the Forest Supervisor recommended a preferred alternative to the Regional Forester. This preferred alternative is identified in Chapter II of this Environmental Impact Statement, and is displayed as the proposed Plan which accompanies this EIS.

9. Plan Approval. After the issuance of the Final Environmental Impact Statement, the Regional Forester shall review the proposed plan and the Final Environmental Impact Statement and shall either approve or disapprove the plan in accordance with 36 CFR 219.10(c). In the case of Plan approval, a Record of Decision shall include a summarized comparison of the selected alternative with (1) any environmentally preferred alternatives and (2) any other alternatives with a higher present net value.

10. Monitoring and Evaluation. At intervals established in the Plan, implementation will be evaluated on a sample basis to determine how well the objectives of the Pplan are being met and how closely management standards and guidelines are being followed. Based upon this evaluation the Interdisciplinary Team will recommend to the Forest Supervisor such changes in management direction, revisions, or amendment to the Forest Plan as are deemed necessary. The monitoring plan, which includes (1) the actions, effects, or resources to be monitored, (2) the frequency of measurement, (3) the expected precision and reliability of the monitoring process, (4) the time when the evaluation will be reported, and (5) the allowable limits of variation; is included in Chapter V of the proposed Forest Plan.

II. Inventory Data and Information Collection

A. Capability Areas

Capability areas are identifiable, locatable, contiguous areas of land whose inherent characteristics dictate that the response of affects of management will be relatively the same for all acres within the area. They should provide an identifiable land unit that is essentially the same throughout with respect to potential condition.

The Humboldt National Forest delineated its capability areas as follows:

1. Similar vegetative types were broken out and separated from adjacent types using the Regional range analysis types such as grass, sagebrush, pinyon-juniper, etc. Existing REA data was used wherever possible. If data was unavailable, then the types were delineated visually on aerial photographs. The classification of these areas was later verified in the field. While this classification relied heavily on existing vegetative types, a strong attempt was made to recognize the potential for vegetative changes over time.

2. Once the similarly-grouped vegetative types were separated, the Soil Scientist overlaid the map with the Forest's land type association lines. This had the immediate effect of creating more areas, but the areas were now grouped by vegetation potential, geology, soils, run-off characteristics and erosion hazard.

3. Each delineated area was now assigned a production potential of high, moderate, or low. Production potential is defined as the estimated annual production of green foliage expressed as pounds/acres/year (dry weight).

Low productivity: 0 - 499 pounds/acre/year
Moderate productivity: 500 - 999 pounds/acre/year
High productivity: 1000+ pounds/acre/year

There are no specific identifying numbers for the capability areas. Identification will be made directly off the capability area maps.

B. Analysis Areas

Code	Name	Description
1	MTCITY	Mountain City Outside Roadless
2	E. HUM	East Humboldt Outside Roadless
3	RUBYDV	Ruby Outside Roadless
4	JARBID	Jarbidge Outside Roadless
5	J WILD	Jarbidge Wilderness
6	MORIAH	Moriah Outside Roadless
7	SNAKE	Snake Outside Roadless
8	SCHELL	Schell Outside Roadless
9	WARD	Ward Outside Roadless
10	WHPINE	White Pine Outside Roadless
11	QUINN	Quinn Outside Roadless
12	STROSA	Santa Rosa Outside Roadless
13	SODUMM	SO Dummy
14	MCTYDD	Mountain City District Dummy
15	RUBYDD	Ruby Mountains District Dummy
16	JARBDD	Jarbidge District Dummy
17	ELYDD	Ely District Dummy
18	SROSDD	Santa Rosa District Dummy
19	RDLSSA	Roadless Area A
20	RDLSSB	Roadless Area B
21	EHUMRL	East Humboldt Roadless Area 226
23	PRLPRL	Pearl Peak Roadless Area 228
24	SROSRL	Santa Rosa Roadless Area 229
25	QUNRRL	Quinn River Roadless Area 230C
26	EMRDLS	Eight Mile Roadless Area 351
27	MTMORL	Mount Moriah Roadless Area 352
28	SEIGRL	Siegel Roadless Area 353
29	NSCHRL	North Schell Roadless Area 354
30	SSCHRL	South Schell Roadless Area 355
31	DCRMRL	Duck Creek Mountains Roadless Area 356
32	CAVERL	Cave Creek Roadless Area 357
33	COOPRL	Cooper Roadless Area 358
34	WHEPRL	Wheeler Peak Roadless Area 359

35	QUINRL	Quinn Roadless Area 360
36	BLSPRL	Black Springs Roadless Area 361
37	WHPNRL	White Pine North Roadless Area 362A
38	WHPSRL	White Pine South Roadless Area 362B
39	SHBKRL	Shellback Roadless Area 364
40	BMTNRL	Bald Mountain North Roadless Area 365A
41	BMTSRL	Bald Mountain South Roadless Area 365B
42	CTWNRL	Cottonwood North Roadless Area 366A
43	CTWSRL	Cottonwood South Roadless Area 366B
44	RBMTRL	Ruby Mountains Roadless Area 367
45	RDMTRL	Red Mountain Roadless Area 368
46	WILHRL	Wilhoites Roadless Area 369
47	WDMTRL	Ward Mountain Roadless Area 370
48	GRNTRL	Grant Range Roadless Area 371
49	JARBRL	Jarbide Roadless Area 372
50	LMCRRL	Lime Creek Roadless Area 373
51	ELKMRL	Elk Mountain Roadless Area 374
52	FLTCRL	Flat Creek Roadless Area 375
53	COMTRL	Copper Mountain Roadless Area 376
54	RTSKRL	Rattlesnake Roadless Area 377
55	ROCNRL	Robinson Canyon Roadless Area 378
56	RKGLRL	Rocky Gulch Roadless Area 379
57	BRURRL	Bruneau River Roadless Area 380
58	MOHGRL	Mohaganies Roadless Area 381
59	MRTMRL	Merritt Mountain Roadless Area 382
60	LOGCRL	Log Creek Roadless Area 384
61	WHRKRL	White Rock Roadless Area 387
62	WLDHRL	Wild Horse Roadless Area 388
63	INDERL	Independence Roadless Area 389
64	HAYSRL	Haystack Roadless Area 390
65	HIRDRL	Highland Ridge Roadless Area 391
66	MCCLRL	McCall Roadless Area 836
67	LAMPRL	Lampson Roadless Area 838
68	DKWTRL	Duckwater Roadless Area 839
69	RBMNRL	Ruby Mountain Roadless Area 227

Level 2 - (Not Used)
Level 3 - (Not Used)
Level 4 - (Not Used)
Level 5 - (Not Used)
Level 6 - (Not Used)

C. Production Coefficients

Resource outputs were developed for each analysis area by linking resource suitability and economics to analysis areas. Specialists in the respective resource fields produced the production coeffients which are expressed in the following units:

1. Recreation

Developed recreation in thousands of recreation visitor days (MRVD).

2. Wilderness

Wilderness acres in thousands of acres (M acres).

Wilderness use in thousands of recreation visitor days (MRVD).

3. Wildlife

Big game hunting in thousands of wildlife/fish user days (M WFUD).

Small game hunting in thousands of wildlife/fish user days (M WFUD).

Upland game hunting in thousands of wildlife/fish user days (M WFUD).

Nature study, nongame use in thousands of wildlife/fish user days (M WFUD).

Waterfowl hunting in thousands of wildlife/fish user days (M WFUD).

Coldwater fishing in thousands of wildlife/fish user days (M WFUD).

4. Range

Permitted grazing use in thousands of animal unit months (M AUM)

5. Timber

Soft and hard wood (both free and charge) in cords

Christmas trees (both personal use and commercial) in numbers of trees.

Pinenuts (both personal use and commercial use) in pounds of nuts.

6. Water

Water quality meeting state standards in thousands of acre feet (M Ac Ft).

D. Areas Tentatively Suitable for Management Practices

All land within the Humboldt National Forest (except for water, rock, and barren land) is capable of producing some level of forage for grazing and browsing animals. The quantity and quality of forage produced on a given site is dependent on such factors as available moisture, soil productivity, plant composition, plant vigor, and past management. These factors are discussed below.

CAPABILITY AND SUITABILITY FOR GRAZING

Grass, forbs, browse and trees all compete for available moisture, soil nutrients, and space. As the density of the tree canopy decreases, sunlight increases, and forage and browse production generally increases. The production potential of combinations of plant species will be addressed in the individual prescriptions.

The greatest potential for increasing forage production is by improving the vegetative composition; by controlling stand density (primarily in pinyon-juniper, so that forage production can be sustained in the tree canopy); and by controlling sagebrush and other less desirable plants so that they do not out-compete other high forage producing browse.

AVAILABLE MOISTURE AND SOIL PRODUCTIVITY

The capability areas delineated in the data base were classified for forage production potential. This potential is directly related to available moisture and soil productivity and is limited only by the investments made and the trade-offs one is willing to accept in the production of other forest products and uses.

The more healthy or vigorous a plant is, the more forage it will produce. Forage production will increase substantially as the condition is improved to the next higher class that is from poor to fair, fair to good, and good to excellent.

Even though some lands are currently producing substantial amounts of forage, it may not always be economically feasible or in the best interest of good land management to graze animals on all such lands. The suitability of lands within the Humboldt, to support grazing animals, is primarily dependent on two factors, slope and the cost of properly managing the rangelands to control grazing animals. Regional guides were used in determining suitability.

The cost of utilizing forage can be so high that it becomes unfeasible to use portions of the rangeland. This generally occurs where water and other development costs are very high and forage production is low. This results in these areas being only lightly grazed or not grazed at all. The determination as to what is sutiable for grazing will be made in a cost/benefit evaluation and analysis in the planning process.

The majority of acreage incapable of being used by livestock is not capable because of plant composition and dense pinyon-juniper overstories limiting forage production. Also there are some acres determined not capable because land is barren or rocky.

For management purposes, the difference between lands not being capable and not being suitable is of no significant. It is all called unsuitable and was not broken out.

AVAILABILITY FOR GRAZING

Certain lands of the Forest are presently not available for grazing domestic livestock because of administrative decisions for closures to avoid unacceptable conflicts or impacts with other land uses such as campgrounds, administrative sites, municipal watersheds, etc. These lands total 32,838 acres.

SUMMARY

Net National Forest Lands	2,527,929
Unavailable	32,838
Not Capable and/or Unsuitable	1,195,319
Total available, capable and suitable	1,299,772

E. Allocation and Scheduling

The management prescriptions used in the Humboldt National Forest's Version II FORPLAN model contain a variety of land allocations and timing combinations for each analysis area. The process records contain detailed information on the formulation of every prescription.

F. Monitoring and Evaluation

The planning data provides a base from which changes can be measured and as a control for the monitoring actions which are detailed in the Forest Plan. Assumptions and coefficients will be verified and the data will be refined and updated as the Forest Plan is implemented.

G. Subsequent Programs for Plan Implementation

The planning data contains biological, physical, social and economic data which will help develop subsequent programs for plan implementation. As more and updated information becomes available, the data base will be updated and improved.

H. Sources of Data

Data used in the analysis was developed from the following sources:

1. Definitions of outputs, activities and effects - Forest Service Manual, Management Information Handbook (FSH 1309.11a).

2. Administrative boundaries and landowndership - Humboldt National Forest base map.

3. Analysis area maps - 1/2" = 1 mile maps for the Humboldt National Forest.

4. Economics. Resource values were based on the 1980 RPA values as adjusted for local (R-4) conditions.

5. Recreation coefficients in RVD's - Recreation Information Management (RIM) reports.

6. Recreation Opportunity Spectrum was mapped on USGS quads.

7. Forage production potential was calculated from average yields contained in existing allotment management plan analysis.

III. THE FOREST PLANNING MODEL (FORPLAN)

A. Overview:

1. FORPLAN (short for FORest PLANning model) was the Linear Programming (LP) model used in the development and evaluation of benchmarks and alternatives. FORPLAN is a third-generation configuration of a series of LP models developed by the Forest Service to aid in resource management planning. Timber RAM and MUSYC, two predecessors, are single resource models designed to evaluate timber allocation problems. FORPLAN, on the other hand, is designed to evaluate problems involving "multi-resource" outputs. In general, linear programming is a mathematical optimization technique which seeks to assign values to decision variables in such a way as to simultaneously satisy a set of linear constraints and maximize or minimize a linear objective function. Linear programming has been applied to a diverse set of problems involving the allocation of scarce resources in an optimal manner. In the FORPLAN resource allocation model, management prescriptions (the program components) are allocated to areas of land (analysis areas) in a manner which maximizes present net value (the objective function) while satisfying certain conditions such as minimum or maximum levels of some Forest products (constraints). A brief description of the major components of the FORPLAN model follows.

ANALYSIS AREAS

As formulated, analysis areas generally represent contiguous areas of land.

MANAGEMENT PRESCRIPTIONS

Multiple use management prescriptions represent a set of management practices or activities and their associated standards and guidelines. They are designed to produce a mix of outputs through time. Each prescription contains components of a production function for jointly produced outputs. Different analysis areas may utilize the same "prescription", however different output levels, costs, or benefits would occur due to inherent differences between analysis areas. Management prescriptions are commonly identified by two factors, Management Emphasis and Management Intensity, within the FORPLAN data file. Timing and scheduling options are defined as an integral part of each prescription.

ACTIVITIES

Activities represent active or passive management of the land. Further, activities incur costs; hence, represent choices for the use of capital outlays. Activities may be specific, such as; harvest one acre of mature lodgepole pine by clearcutting using a tractor logging method. Alternatively, the activity may be general, such as: increase heavy maintenance in developed recreation sites to reduce facility deterioration rate. The activities associated with each management prescription are further defined by standards and guidelines.

OBJECTIVE FUNCTION

The objective function guides the linear programming algorithm to an optimal solution. In Forest planning alternatives, the objective function is "maximize present net value" of all priced outputs. Nonpriced outputs and qualitative environmental effects are portrayed with specified constraint sets. Since constraints must always be satisfied, the objective function will never locate optimal solutions outside the scope of the constraints specified for outputs and environmental effects (whether or not they are priced). For this reason, it is desirable to consider marginal changes in solutions as constraint sets are adjusted. This "sensitivity analysis" is quite expensive, given the scope of the Forest planning problem, and will be performed only where a major issue or concern suggests that the benefits from the additional analysis will outweigh the costs of the analysis.

OUTPUTS AND ENVIRONMENTAL EFFECTS

Outputs and environmental effects result from the activities modeled. Generally, as more money is applied to the activity set, more outputs are produced from the land. However, qualitative criteria are also included in the model; hence, there may be exceptions to the above generalization. Outputs may be priced directly in the model or may be included without prices where estimation of prices is not practical. Environmental effects included in the model represent quality differentials and will typically be represented through the use of constraints.

CONSTRAINTS

Constraints are used to ensure that the assignment of prescriptions to analysis areas conforms to the emphasis of a particular alternative. FORPLAN constraints fall into four categories: (1) constraints for technical implementability, (2) constraints to ensure conformance to the minimum management requirements, (3) general timber policy constraints; i.e., nondeclining yield and harvest of timber stands generated at or beyond mean annual increment, and (4) discretionary constraints designed to achieve various levels of outputs and expenditure levels. The first three categories of constraints define production limits common to most alternatives (exceptions include "departure alternatives"). The fourth category completes the specification of the production surface for a particular alternative. Specification of the produciton surface and an objective function are sufficient conditions for the FORPLAN model to achieve an efficient assignment of prescriptions to analysis areas.)

2. Prescription Development

Each of the 62 analysis areas has 15 management prescriptions.

Although it may appear simple at first glance, prescription formulation is a complex process. The prescriptions must be unbiased, internally consistent and span the range of possibilities which exist for the Forest. Consequently, an almost infinite number of reasonable alternatives can be proposed. The tasks then become:

1. To formulate unbiased prescriptions which integrate competing and complimenting resource uses and activities into coherent management directions.

2. To formulate prescriptions which represent a reasonable range of possibilities that exist.

3. To limit the number of prescriptions, so that each can be adequately evaluated and compared to all other prescriptions.

The steps the Humboldt took to accomplish these tasks consisted of:

1. Evaluating the public issue questions and combibing those of similar scope and character into issue groups.

2. Conducting two compatibility analyses between issue groups by featuring each group as the "key issue group" and seeing how, in a one-to-one comparison, the remaining issue groups fell into one of three categories; Fully Compatible, Moderately Compatible, or Incompatible.

   In the first analysis it was assumed that the goals, objectives and/or outputs of the "key issue group" would be achieved at 90 percent or greater of its maximum level. The categories into which the remaining issue groups were placed are defined below:

   a. Fully compatible - The issue group can be sustained at 90 percent or greater of its maximum level when combined with the key issue group.

   b. Moderately Compatible - The issue group can be sustained at 60 - 90 percent of its maximum level when combined with the key issue group.

   c. Incompatible - The issue group can be sustained at less than 60 percent of its maximum level when combined with the key issue group.

   The prescriptions which were eventually developed, using this method were based upon the maximized output levels of issue groups and this violates the "multiple use" concept under which the Forest acts.

A second analysis was undertaken to compensate for this major weakness of the previous analysis. In the new analysis the word "optimum" was substituted for "maximum" in all previous definitions. The significance of this change was the "optimum" level represented the greatest level that could be achieved, while remaining within constraints of the Multple Use-Sustained Yield Act.

3. Taking the compatibility charts developed in the second compatibility analysis and, after allowing for synergistic effects of issue groups not being featured, formulating realistic prescriptions.

Resource outputs were developed for each combination of analysis area and management prescription. FORPLAN assigns those management prescriptions to analysis areas which produce the goods and services that optimize the objective function, after meeting all constraints.

Alternatives were generated by constraining management prescriptions available to analysis areas, or constraining the outputs from analysis areas or groups of analysis areas. These constraints were designed to achieve the goals of an alternative. The conditions set by the constraints must be satisfied before the objective function is optimized. The analysis of the benchmarks and alternatives utilized the same objective function, to maximize present net value. In other words, after meeting all constraints the FORPLAN model allocated the remaining opportunities to produce the most economic value.

B. Anaysis Process and Analytical Tools

Analysis leading up to FORPLAN included designing management prescriptions (Planning Record: Management Prescriptions), assigning practices to prescriptions (Planning Record: Management Practices), developing management costs for each practice and predicting resource outputs (Planning Record: Resource Information used in FORPLAN), and benefits (Planning Record: Economic Input Information used in FORPLAN).

Cost efficiency was considered by the interdisciplinary team while they were developing a realistic and flexible set of management prescriptions. Professional judgement played a major role. FORPLAN was later used to examine the comparative cost efficiencies of prescriptions.

FORPLAN was utilized to provide the basis for optimal land allocation and management prescription selection and scheduling for each analysis area. This process results in selection of the most cost-efficient management prescriptions and land allocations that meet a given set of constraints and an objective function of maximizing present net value.

A social impact assessment and the identification of baseline socioeconomic conditions were developed for the local area.

C. Identification of Analysis Areas

The Forest Management Team suggested administrative and biological lines which they felt controlled much of the management direction of the Forest.

When all these lines were superimposed the maps illustrated areas with a high potential for conflict and formed the basic analysis areas.

The existing inventory data for the Humboldt was examined and determined to be insufficient to model resources at this fine a breakdown. The need to reevaluate all of the roadless areas identified on the Forest also has a significant affect on the definition of analysis areas.

It was determined by the Forest Management Team to consolidate the original analysis areas into 13 analysis areas and then split roadless areas out from these existing areas. A FORTRAN computer program was developed by the Intermountain Region Regional Office to perform this data manipulation. The need to develop 735 new prescriptions (49 roadless areas with 15 prescriptions for each area) required this computer program in order to meet time constraints for completion of the Forest Plan. The computer program assumed that each acre in an analysis area was the same as any other acre and split out activity costs and outputs on a ratio of acreages between the roadless areas and the original analysis areas.

D. Identification of Prescriptions

1. Overview

NFMA regulations define management prescriptions as "management practices and intensities selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives" (36 CFR 219.3). Generally, a management prescription is a set of treatments or practices to develope and/or protect some combination of resources on a particular land type.

The Interdisciplinary Team reviewed the public issues and management concerns, used professional judgement and RPA program targets for guidance in developing multiple use management prescription goal statements. The goal statements and related issues are as follows:

A. No-Action (Current Budget Prescription):

This prescription favors marketable commodities due to the moderate emphasis placed on livestock grazing. It attempts to accomodate social and economic needs of the planning area with improving environmental conditions, while remaining near the 1981 Forest budget level in constant dollars.

Emphasis on commodities is as follows:

HIGH EMPASIS:
None

MODERATE EMPHASIS:
Livestock Grazing
Minerals Management

LOW EMPHASIS:
Soil/Water
Wildlife/Fish Habitat
Developed Recreation
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products

B. Prescription A: This prescription places highest emphasis on providing marketable commodities. Moderate to low emphasis is placed on non-marketable values. Management under this prescription weighs heavily toward development of the resources to promote marketable outputs.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Livestock Grazing
Minerals Management
Woodland Products

MODERATE EMPHASIS:
Soil/Water
Wildlife/Fish Habitat

LOW EMPHASIS:
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Developed Recreation

C. Prescription B: This prescription is directed towards marketable commodity development. Management under this prescription places a high emphasis on livestock grazing for which the Forest has a high potential.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Livestock Grazing
Developed Recreation

MODERATE EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Non-Motorized Dispersed Recreation

LOW EMPHASIS:
Soil/Water
Wildlife/Fish Habitat
Minerals Management

D. Prescription C: This prescription ranks high on marketable commodity ouputs because of the high emphasis placed on livestock grazing for which the Forest has a high potential. In turn, it places a moderate to low emphasis on the non-marketable values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Livestock Grazing

MODERATE EMPHASIS:
Soil/Water
Wildlife/Fish Habitat
Minerals Mangement

LOW EMPHASIS:
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

E. Prescription D: This prescription places a high to moderate emphasis on marketable commodities, while providing a wide range of emphasis (i.e. high to low) on marketable values. The commodities and recreation values given high emphasis will be developed as public use warrants.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

MODERATE EMPHASIS:
Livestock Grazing

LOW EMPHASIS:
Non-Motorized Dispersed Recreation
Wildlife/Fish Habitat
Soil/Water
Minerals Management

F. Prescription E: This prescription provides a relatively balanced mixture of marketable commodities and non-marketable values. The commodities and recreation values given high emphasis will be developed as public use warrants.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

MODERATE EMPHASIS:
Wildlife/Fish Habitat
Soil/Water
Livestock Grazing
Minerals Management

LOW EMPHASIS:
Non-Motorized Dispersed Recreation

G. Prescription F: This prescription places a wide range of emphasis (i.e. high to low) on non-marketable values while providing a moderate to low emphasis on marketable commodities.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Wildlife/Fish Habitat
Minerals Management

MODERATE EMPHASIS:
Soil/Water
Livestock Grazing
Non-Motorized Dispersed Recreation

LOW EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

H. Prescription G: This prescription provides a mixture of marketable commodities and non-marketable values. However, this prescription ranks low on marketable commodity outputs because of the low emphasis placed on livestock grazing. The commodities and recreation values given high emphasis will be developed as public use warrants.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

MODERATE EMPHASIS:
Wildlife/Fish Habitat
Soil/Water
Minerals Management

LOW EMPHASIS:
Livestock Grazing
Non-Motorized Dispersed Recreation

I. Prescription H: This prescription places high emphasis on non-marketable values (except for developed and motorized dispersed recreation) and a moderate to low emphasis on marketable commodities. Management under this prescription is directed toward nondevelopment and conservation of amenity resources.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Soil/Water
Wildlife/Fish Habitat
Non-Motorized Dispersed Recreation
Minerals Management

MODERATE EMPHASIS:
Livestock Grazing

LOW EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

J. Prescription I: This prescription places highest emphasis on providing non-marketable values, while placing the lowest emphasis on marketable commodities. Management under this prescription weighs heavily toward nondevelopment and conservation of amenity resources.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Wildlife/Fish Habitat
Soil/Water
Non-Motorized Dispersed Recreation
Mineral Management

MODERATE EMPHASIS:
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

LOW EMPHASIS:
Livestock Grazing

K. ALL LOW PRESCRIPTION: This prescription places low emphasis on providing both market and non-market values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
None

MODERATE EMPHASIS:
None

LOW EMPHASIS:
Livestock Grazing
Minerals Management
Wildlife/Fish Habitat
Soil/Water
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

L. ALL MODERATE PRESCRIPTION: This prescription places moderate emphasis on providing both market and non-market values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
None

MODERATE EMPHASIS:
Livestock Grazing
Minerals Management
Wildlife/Fish Habitat
Soil/Water
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

LOW EMPHASIS:
None

M. High Except Range Prescription: This prescription provides a range of emphasis (high to moderate) on providing market values and high emphasis on non-market values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Minerals Management
Wildlife/Fish Habitat
Soil/Water
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

MODERATE EMPHASIS:
Livestock Grazing

LOW EMPHASIS:
None

N. High Except Wildlife Prescription: This prescription provides high emphasis on providing market values and a range of emphasis (high to moderate) on providing non-market values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Livestock Grazing
Minerals Management
Soil/Water
Non-Motorized Dispersed Recreation
Motorized Dispersed Recreation
Woodland Products
Developed Recreation

MODERATE EMPHASIS:
Wildlife/Fish Habitat

LOW EMPHASIS:
None

O. Wilderness Prescription: This prescription provides a range of emphasis (high to moderate) on non-market values and low emphasis on market values.

Emphasis on commodities is as follows:

HIGH EMPHASIS:
Non-Motorized Dispersed Recreation

MODERATE EMPHASIS:
Wildlife/Fish Habitat
Soil/Water
Minerals Management

LOW EMPHASIS:
Livestock Grazing

Design of Management Prescriptions

Management practices, standards and guidelines were then developed and assigned to each goal statement by interdisciplinary work groups. Practices were developed and assigned based on current research, feasibility, cost efficiency, potential for resource damage and ability to meet minimum management requirements. The management standards and guidelines needed to accomplish the goals of a prescription include the minimum management requirements, mitigation measures and resource coordination that are required by existing laws, regulations and policy.

Forest-wide standards and guidelines were developed to cover practices which are common to all prescriptions which apply to the practice. The major Forest-wide standards and guidelines are for roading in riparian areas and for collector and local road construction.

The result was a set of fifteen multiple-use management prescriptions with a broad range of emphasis, intensities, practices, standards and guidelines. Some of the prescriptions emphasize market values and others non-market values. Intensities of management vary within prescriptions increasing the range of choices available to the FORPLAN model. Cost efficiency was considered by the team during the development of these prescriptions.

The management prescriptions were designed to:

Project the current program to evaluate implications
Explore resource potentials
Explore opportunities to improve efficiency
Explore opportunities to resolve issues and concerns
Meet national targets (RPA)

2. Prescription Purpose, Criteria and Assumptions

All fifteen prescriptions are utilized in most FORPLAN runs in order to give FORPLAN the maximum flexibility to pick the most cost effective prescription within any existing constraints. Some prescriptions were eliminated from some FORPLAN runs to reduce the size of the model and were considered outside of FORPLAN. The fifteen prescriptions are described here.

A. No Action (Current Budget) Prescription

1. Purpose

Provide for marketable commodities due to the moderate emphasis placed on livestock grazing. It attempts to accomodate social and economic needs of the planning area with improving environmental conditions, while remaining near the 1981 Forest budget level in constant dollars.

2. Criteria and Assumptions

The Forest's ability to reach all stated goals for quality management will be restricted. This fact may or may not be reflected in a reduction of outputs from the Forest.

Although range conditions will continue to improve, they will do so at a slow rate. Beginning in 1985 there will be a decrease in the number of AUMs permitted to graze, as Allotment Management Plans (AMPs) are implemented on some overstocked allotments. AUMs will remain at this level through the year 2000 when they will gradually begin to increase.

Mineral activity is expected to increase, while the Forest's ability to respond to proposals will decline. Therefore, more soil and water problems associated with mining are anticipated in the future.

Although water quality will continue to meet Nevada water quality standards, sediment loading will become an increasing problem as headcutting and gullying proceeds unchecked.

Mule deer habitat will begin to decline about the turn of the century. Both sage grouse and goshawk numbers will continue to slide reflecting habitat loss. More intensive livestock management systems will result in improved riparian conditions and a slight increase in trout populations.

The recreation emphasis is expected to decline as effort is shifted from recreation management to minerals management. The physical condition of some developed sites will deteriorate to a point where they will eventually have to be closed. Other developed sites may have their season of use shortened. Resource damage and user conflicts at dispersed area sites will increase. The road and trail systems will gradually deteriorate due to lack of maintenance. The quality of recreational experiences will decline.

Most of the Forest's commercial timber stands and pinyon-juniper will be under utilized. Although many aspen stands will be utilized for dead fuelwood, some will stagnate and gradually die out.

B. Prescription A

1. Purpose

Places highest emphasis on providing marketable commodities. Moderate to low emphasis is placed on non-marketable values. Management under this prescription weighs heavily toward development of the resources to promote marketable outputs.

2. Criteria and Assumptions

There will be optimum production and utilization of forage allocated for livestock. Range conditions will improve to good or better. As a result there will be a substantial increase in livestock production. Range improvements will be maintained to a high standard.

Mineral activity impacts on the surface resource will be minimized. There will be a high degree of surface and environmental protection.

The availability of wood products for public use will increase through silviculture and range improvements practices. The condition of the wood products resource will be maintained or improved.

The basic soil and water resource will be protected and improved through the accomplishments of small watershed projects and intensive livestock grazing systems. Some areas will receive minor resource damage but these effects will be mitigated.

Wildlife and fish habitats will improve to fair or better ecological condition. The condition and diversity of native vegetation will receive some enhancement, especially in key wildlife areas. Activities on the Forest will be planned and monitored to avoid excessive disturbance of wildlife and fish during critical periods of thier life cycle. The habitat of threatened, endangered and sensitive species will be expanded and improved.

Many recreational roads and trails will not be maintained properly and will eventually become impassible. Support services such as signing, trailhead facilities, and dispersed campsites will not be suitably maintained and will deteriorate. Some minor resource damage is expected to occur. User conflict and public safety problems will increase. No new developed recreation sites will be constructed and many of the existing ones will deteriorate and evantually be closed due to lack of maintenance.

C. Prescription B

1. Purpose

Directed towards marketable commodity development. Management under this prescription places a high emphasis on livestock grazing for which the Forest has a high potential.

2. Criteria and Assumptions

There will be optimum production and utilization of forage allocated for livestock. Range condition will improve to good or better. As a result there will be a sustantial increase in livestock production. Range improvements will be maintained to a high standard.
Developed recreation sites will be maintained and operated at a "full service" level. Existing sites will be expanded or new sites constructed as public use warrants.

Roads and trails will receive adequate maintenance in those aras where visitor use is heavy. Those areas receiving lessuse will be maintianed at a minimal level and may evantually be closed as some sites deteriorate.

Wood products availability will increase slightly. The resource will be maintained in its present condition.

Although overall watershed conditions will improve as intensive grazing systems are implemented, some watershed problems will not be corrected, unless funded by other resource elements. Soil and water problems associated with mining activities will increase.

Some habitat conditions for wildlife and fish will decline. Only minimal efforts will be made to avoid disturbance of wildlife and fish during critical periods of their life cycle. The present range of threatened, endangered, and sensitive species will be maintained.

Since mineral activities will be managed at a low level, the Forest anticipates numerous small and possibly some large soil and water problems associated with mining activity.

D. Prescription C

1. Purpose

Ranks high on marketable commodity ouputs because of the high emphasis placed on livestock grazing, for which the Forest has a high potential. In turn, it places a moderate to low emphasis on the non-marketable values.

2. Criteria and Assumptions

There will be optimum production and utilization of forage allocated for livestock. Range condition will improve to good or better. As a result there will be a substantial increase in livestock production. Range improvements will be maintained to a high standard.

The basic soil and water resource will be protected and improved through the accomplishment of small watershed projects and intensive livestock grazing systems. Some areas will receive minor resource damage but these effects will be mitigated.

Wildlife and fish habitats will improve to fair or better ecological condition. The condition and diversity of native vegetation will receive some enhancement, especially in key wildlife areas. Activities on the

Forest will be planned and monitored, so as to avoid excessive disturbance to wildlife and fish during critical periods of their life cycle. The habitat of threatened, endangered and sensitive species will be expanded and improved.

With mineral activities being managed at a moderate level, certain impacts of mining may receive inadequate consideration. This will ultimately lead to some minor resource deterioration associated with mining.

Trails and roads will not be suitably maintained and will eventually become impassible. Support services such as signing, trailhead facilities, and dispersed campsites will not be adequately maintained and will deteriorate. Some minor resource damage is expected to occur. User conflict and public safety problems will increase and not be resolved. No new developed recreation sites will be constructed any many of the existing ones will deteriorate and eventually be closed due to lack of maintenance.

Wood products availability will remain static or decline. The condition of the wood products resource may decline.

E. Prescription D

1. Purpose

Places high to moderate emphasis on marketable commodities while providing a wide range of emphases (i.e. high to low) on marketable values. The commodities and recreation values given high emphasis will be developed as public use warrants.

2. Criteria and Assumptions

The availability of wood products for public use will increase through silviculture practices. The condition of the wood products resource will be maintained or improved.

All roads, motorized trails, and campgrounds will be maintained to a high standard and expanded as demand warrants. Scenic values and cultural resources will be protected.

Primary range for livestock will improve to satisfactory ecological condition. Livestock numbers or their season of sue will increase as range conditions improve. All range improvements will be maintained to Forest Service standards.

Overall watershed conditions will improve slightly. No new watershed improvement projects will be initiated unless funded by other resource elements. Watershed problems will arise in areas where heavy ORV and wood gathering activities occur.

Some habitat conditions for wildlife and fish will decline. Only minimal efforts will be made to avoid disturbance of wildlife and fish during critical perods of their life cycle. The present range of threatened, endangered and sensitive species will be maintained.

Since mineral activities will be managed at a low level, the Forest anticipates numerous small, and possibly some large soil and water problems associated with mining activities.

F. Prescription E

1. Purpose

Provides a relatively balanced mixture of marketable commodities and non-marketable values. The commodities and recreation values given high emphasis will be developed as public use warrants.

2. Criteria and Assumptions

All roads, trails, and campgrounds will be maintained to a high standard and expanded as demand warrants. Scenic values and cultural resources will be protected.

The availability of wood products for public use will increase through silviculture practices. The condition of the wood products resource will be maintained or improved.

Wildlife and fish habitats will improve to fair or better ecological condition. The condition and diversity of native vegetaiton will receive some enhancement, especially in key wildlife areas. Activities on the Forest will be planned and monitored to avoid excessive disturbance to wildlife and fish during critical periods of their life cycle. The habitat of threatened, endangered and sensitive species will be expanded and improved.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of small watershed projects. Overall improvement will be modest due to some minor soil and water resource damage caused by other resource uses.

Primary range for livestock will improve to satisfactory ecological condition. Livestock numbers or their season of use will increase, as range conditions improve. All range improvements will be maintained to Forest Service standards. There will be some healing of riparian areas.

With mineral activities being managed at a moderate level, certain impacts of mining may receive inadequate consideration. This will ultimately lead to some minor resource deterioration associated with mining.

There will be little maintenance of trails and signs in non-motorized dispersed areas and no development of new trails. Newly designated wilderness and special areas will not be developed. Trails will become impassable and signs will deteriorate. Visual and surface resource damage will occur, reducing the quality of the primitive or semi-primitive experience. User conflicts and public safety problems will increase due to lack of visitor information services.

G. Prescription F

1. Purpose

Places a wide range of emphases (i.e. high to low) on non-marketable values while providing a moderate to low emphasis on marketable commodities.

2. Criteria and Assumptions

Wildlife and fish habitats will improve to good or better ecological condition. Activities on the Forest will be planned and monitored to minimize the disturbance to wildlife and fish during critical periods of their life cycle. The range of threatened, endangered, and sensitive species will be expanded and improved.

Mineral activity impacts on the surface resource will be minimized. There will be a high level of surface and environmental protection.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of small watershed projects. Overall improvement will be minimal due to some minor soil and water resource damage cause by other resource uses.

Primary range for livestock will improve to satisfactory ecological condition. Livestock numbers or their season of use will increase as range conditions improve. All range improvements will be maintained to Forest Service standards. There will be some healing of riparian areas.

Non-motorized dispersed recreation sites which receive a high level of visitor use will be maintained to a high standard. The condition of other sites will remain static or improve slightly.

There will be only periodic maintenance of roads or signs in motorized dispersed recreation areas resulting in deterioration and eventual loss of the resource. No new roads or snowmobile trails will be constructed. No new campgrounds will be built and some will be closed due to lack of maintenance. User conflicts and public safety problems will increase due to lack of visitor information services.

Wood products availability will remain static or decline. The condition of the wood products resource may decline.

H. Prescription G

1. Purpose

Provides a mixture of marketable commodities and non-marketable values. However, marketable commodity outputs rank low due to the low emphasis placed on livestock grazing. The commodities and recreation values given high emphasis will be developed as public use warrants.

2. Criteria and Assumptions

The availability of wood products for public use will increase through silvicultural practices. The condition of the wood products resource will be maintained or improved.

All roads, motorized trails and campgrounds will be maintained to a high standard and expanded as demand warrants. Scenic values and cultural resources will be protected.

Wildlife and fish habitats will improve to fair or better ecological condition. The condition and diversity of native vegetation will receive some enhancement, especially in key wildlife areas. Activities on the Forest will be planned and monitored, so as to avoid excessive disturbance to wildlife and fish during critical periods of their life cycle. The habitat of threatened, endangered and sensitive species will be expanded and improved.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of small watershed projects. Overall improvement will be minimal due to some minor soil and water resource damage caused by other resource uses.

With mineral activites being managed at a moderate level, certain impacts of mining may receive inadequate consideration. This will ultimately lead to some minor resource deterioration associated with mining.

Range conditions will not be allowed to deteriorate. Range structural improvements will be maintained in their current condition, while non-structural improvements will deteriorate.

There will be little maintenance of trails or signs in non-motorized dispersed areas and no development of new trails. Therefore, newly designated wilderness and special areas will not be developed. Trails will eventually become impassable and signs will deteriorate. User conflict and public safety problems will increase due to lack of visitor information services.

C. Prescription H

1. Purpose

Places high emphasis on non-market values (except for developed and motorized dispersed recreation) and a moderate to low emphasis on marketable commodities. Management is directed toward nondevelopment and conservation of amenity resources.

2. Criteria and Assumptions

The basic soil and water resource will be protected and in some cases improved through the accomplishment of several small watershed projects per year. There will be gradual overall improvement in watershed condition.

Wildlife and fish habitats will improve to good or better ecological condition. Activities on the Forest will be planned and monitored to minimize the disturbance to wildlife and fish during critical periods of their life cycle. The range of threatened, endangered, and sensitive species will be expanded and improved.

Non-motorized trails and dispersed sites will be maintained to a high standard. Trails and signs will be constructed in newly designated wilderness and special areas. Scenic values and cultural resource will be protected.

Mineral activity impacts on the surface resource will be minimized. There will be a high degree of surface and environmental protection.

Primary range for livestock will improve to satisfactory ecological condition. Livestock numbers on their season of use will increase as range conditions improve. All range improvements will be maintained to Forest Service standards. There will be some healing of riparian areas.

There will be little maintenance of roads or signs in motorized dispersed recreation areas resulting in deterioration and eventual loss. No new campgrounds will be built and some will be closed due to lack of maintenance. User conflicts and public safety problems will increase due to lack of visitor information services.

Wood products availability will remain static or decline. The condition of the wood products resource may decline.

J. Prescription I

1. Purpose

Places highest emphasis on providing non-marketable values, while placing the lowest emphasis on marketable commodities. Management weighs heavily toward nondevelopment and conservation of amenity resources.

2. Criteria and Assumptions

Wildlife and fish habitats will improve to good or better ecological condition. Activities on the Forest will be planned and monitored to minimize the disturbance to wildlife and fish during critical periods of their life cycle. The range of threatened, endangered, and sensitive species will be expanded and improved.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of several small watershed projects per year. There will be a gradual overall improvement in watershed condition.

Non-motorized trails and dispersed sites will be maintained to a high standard. Trails and signs will be constructed in newly designated wilderness and special areas. Scenic values and cultural resources will be protected.

Mineral activity impacts on the surface resource will be minimized There will be a high degree of surface and environmental protection.

Roads, snowmobile trails, and developed campgrounds will receive adequate maintenance in those areas where visitor use is heavy. Those areas receiving less use will be maintained at a minimal level and may eventually be closed as some sites deteriorate.

Wood products availability will increase slightly. The resource will be maintained in its present condition.

Range conditions will not be allowed to deteriorate. Range structual improvements will be maintained in their current condition, while non-structural improvements will deteriorate.

K. All Low Prescription

1. Purpose

This prescription places a low emphasis on both marketable commodities and non-marketable values.

2. Criteria and Assumptions

The Forest's ability to reach all stated goals for quality management will be restricted. This fact may or may not be reflected in a reduction of outputs from the Forest.

Range conditions will not be allowed to deteriorate. Range structural improvements will be maintained in their current condition, while non-structural improvements will deteriorate.

Since mineral activities will be managed at a low level, the Forest anticipates numerous small and possibly some large soil and water problems associated with mining activity. Although water quality will continue to meet Nevada water quality standards, sediment loading will become an increasing problem as headcutting and gullying proceeds unchecked.

Mule deer habitat will begin to decline about the turn of the century. Both sage grouse and goshawk numbers will continue to slide reflecting habitat loss. Less intensive livestock management systems will result in static or deteriorating riparian conditions and a decrease in trout populations.

The physical condition of some developed recreation sites will deteriorate to a point where they will eventually have to be closed. Other developed sites may have their season of use shortened. Resource damage and user conflicts at dispersed area sites will increase. The road and trail system will gradually deteriorate due to lack of maintenance. The quality of recreational experiences will decline.

Most of the Forest's commercial timber stands and pinyon-juniper will be under-utilized. Although many aspen stands will be utilized for dead fuewlwood, some will stagnate and gradually die out.

L. All Moderate Prescription

1. Purpose

This prescription places a moderate emphasis on both marketable commodities and non-marketable values.

2. Criteria and Assumptions

Although range conditions will continue to improve, they will do so at a slow rate. Beginning in 1985 there will be a decrease in the number of AUMs permitted to graze, as Allotment Management Plans (AMPs) are implemented on some overstocked allotments. AUMs will remain at this level through the year 2000 when they will gradually begin to increase.

Mineral activity is expected to increase, while the Forest's ability to respond to proposals will decline. Therefore, more soil and water problems associated with mining are anticipated in the future.

Roads, snowmobile trails, and developed campgrounds will receive adequate maintenance in those areas where visitor use is heavy. Those areas receiving less use will be maintained at a minimal level and may eventually be closed as some sites deteriorate.

Wood products availability will increase slightly. The resource will be maintained in its present condition.

The basic soil and water resource will be protected and improved through the accomplishment of small watershed projects and intensive livestock grazing systems. Some areas will receive minor resource damage but these effects will be mitigated.

Wildlife and fish habitats will improve to fair or better ecological condition. The condition and diversity of native vegetation will receive some enhancement, especially in key wildlife areas. Activities on the Forest will be planned and monitored to avoid excessive distrubance of wildlife and fish during critical periods of their life cycle. The habitat of threatened, endangered, and sensitive species will be expanded and improved.

M. All High Except Range Prescription

1. Purpose

This prescription places a high emphasis on both marketable commodities and non-marketable values except for livestock grazing which will be managed at a moderate emphasis.

2. Criteria and Assumptions

Although range conditions will continue to improve, they will do so at a slow rate. Beginning in 1985 there will be a decrease in the number of AUMs permitted to graze, as Allotment Management Plans (AMPs) are implemented on some overstocked allotments. AUMs will remain at this level through the year 2000 when they will gradually begin to increase, reaching 315,000 AUMs by the end of the planning horizon.

Wildlife and fish habitats will improve to good or better ecological condition. Activities on the Forest will be planned and monitored, to minimize the disturbance to wildlife and fish during critical periods of their life cycle. The range of threatened, endangered, and sensitive species will be expanded and improved.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of several small watershed projects per year. There will be a gradual overall improvement in watershed condition.

Non-motorized trails and dispersed sites will be maintained to a high standard. Trails and signs will be constructed in newly designated wilderness and special areas. Scenic values and cultural resources will be protected.

Mineral activity impacts on the surface resource will be minimized. There will be a high degree of surface and environmental protection.

The availability of wood products for public use will increase through silvicultural practices. The condition of the wood products resource will be maintained or improved.

All roads, motorized trails and campgrounds will be maintained to a high standard and expanded as demand warrants. Scenic values and cultural resources will be protected.

N. All High Except Wildlife Prescription

1. Purpose

This prescription places a high emphasis on both marketable commodities and non-marketable values except for wildlife/fish habitat which will be managed at a moderate emphasis.

2. Criteria and Assumptions

There will be optimum production and utilization of forage allocated for livestock. Range conditions will improve to good or better. As a result there will be a substantial increase in livestock production. Range improvements will be maintianed to a high standard.

Mineral activity impacts on the surface resource will be minimized. There will be a high degree of surface and environmental protection.

The availability of wood products for public use will increase through silvicultural and range improvements practices. The condition of the wood products resource will be maintained or improved.

The basic soil and water resource will be protected and in some cases improved through the accomplishment of several small watershed projects per year. There will be a gradual overall improvement in watershed condition.

Non-motorized trails and dispersed sites will be maintained to a high standard. Trails and signs will be constructed in newly designated wilderness and special areas. Scenic values and cultural resources will be protected.

0. Wilderness Prescription

1. Purpose

This prescription places a high or moderate emphasis on non-marketable values and a low emphasis on marketable commdoties.

2. Criteria and Assumptions

Range conditions will not be allowed to deteriorate. Non-structural range improvements will deteriorate.

Wildlife and fish habitats will improve to fair or better ecological condition. Activities on the Forest will be planned and monitored to avoid excessive disturbance of wildlife and fish during critical periods of their life cycle. The habitat of threatened, endangered and sensitive species will be expanded and improved.

The basic soil and water resource will be protected and improved. Some areas will receive minor resource damage but these effects will be mitigated.

Non-motorized trails and dispersed sites will be maintained to a high standard. Trails and signs will be constructed in newly designated wilderness and special areas. Scenic values and cultural resources will be protected.

3. Use of Cost Efficiency in Developing Prescriptions

Cost efficiency was considered in developing prescriptions in the following manner. Objectives, standards, and guidelines were establihsed for each prescription by resource element. Given the objectives of the prescription, costs were estimated for resource elements to meet the standards or guidelines of the prescription. Costs of implementing the prescription were developed and compared to the benefit values produced. Prescriptions were carried forward if they were cost efficient in achieving prescription goals.

Two basic assumptions were used in developing prescription costs: Costs experienced in implementing past practices were a reasonable basis from which to predict future costs, and the funding for production of outputs would include only the necessary funding.

4. Reference

Management prescription practices, standards, and guidelines are documented in the planning record. Standards and guidelines apply to each prescription.

IV ECONOMIC EFFICIENCY ANALYSIS

A. Process and Reliability

In recent years, the Federal government has become increasingly aware of and committed to the economic efficiency of Federal actions. The NFMA regulations (36 CFR 219) and ensuing WO and Department of Agriculture direction reflect that the Forest Service should consider economic efficiency in developing and choosing between Forest Plan alternatives.

The NFMA regulations specify the "each alternative shall represent to the extent practicable the most cost-efficient combination of management prescriptions examined that can meet the objectives established in the alternative" (36 CFR 219.12(f)(8)). An alternative or program is said to be cost efficient if it maximizes present net value (PNV) subject to achieving specified levels of outputs and inputs (36 CFR 219.3).

PNV is a means for measuring economic efficiency used in Forest planning. It represents the dollars difference between the discounted value priced outputs and costs within the FORPLAN model.

In complying with the above mentioned regulations, this Forest has used the following procedure.

Maximizing PNV in FORPLAN will provide the levels of priced outputs at an "efficient" point, given the objectives of the alternative as reflected in the model.

It should be noted that the PNV which is calculated by FORPLAN is but one of a variety of factors used to describe a benchmark or alternative. It is not possible to include all costs and benefits in the calculation of PNV for an alternative. The reason for this is due to uncertainty related to such problems as:

1. Not all outputs are explicitly values; e.g. visual quality, protection of threatened and endangered species, etc. These outputs are often constrained to a specified level and are therefore achieved independent of the PNV calculation.

2. Estimation techniques for valuing goods may not be accurate.

3. Values for nonmarket goods provided by RPA often reflect national averages which may differ significantly with local values.

4. Quality differences between priced non-market outputs typically are not valued explicitly; e.g. congestions differentials are often not considered for recreation.

5. Demand curves for priced outputs may not be identified at the Forest level.

Due to these uncertainties surrounding the calculation of PNV, it should be cautioned that this criteria should not be weighted too heavily in the comparison of alternatives. Still the discounted benefits and costs can be used to make comparisons between alternatives.

1. Pricing Estimated in FORPLAN

All priced benefits were estimated for all benchmarks and alternatives covering a 50 year time period. All dollar values in the FORPLAN model are expressed in first quarter 1978 dollars.

Resource prices used in the FORPLAN data base reflect onsite values for all resources, i.e., the value of the resource on the Forest. Benefit values are classified as market values (timber, range, developed recreation, minerals) or non-market values (dispersed recreation, soil and water, wildlife). All resource values are assumed to have a horizontal demand curve except for recreation.

Below are the values for resources incorporated into the FORPLAN model and a brief summary for their development.

a. Wood Products Benefit

1. Fuelwood values

Demand for these products is directly related to accessibility and in those analysis areas which are not expected to be roaded for some time, fuelwood products will be assumed to be in excess of demand.

Due to poor sale data of such products private costs of production are not known. Therefore, actual received stumpage prices are used and assumed to be the net benefit for these products.

Fuelwood will be offered for personal use at $5.00 a cord ($3.76/cord in 1978 dollars) actual price received. Commercial fuelwood sales will be offered on a bid basis.

2. Juniper Posts

Due to poor sale data private costs of production are not known. Therefore, average prices received by the Forest for posts is assumed to be the net benefit - $ .40/post ($ .30/post in 1978 dollars).

3. Pinenuts

Due to poor sale data private costs of production are not known. Therefore, average prices received by the Forest for pinenuts is assumed go be the net benefit - $ .2/lb. ($ .16/lb in 1978 dollars).

4. Christmas trees

Due to poor sale data private costs of production are not known. Therefore, average prices received by the Forest for Christmas trees is assumed to be the net benefit - $2.00/tree ($1.50/tree in 1978 dollars).

b. Livestock Grazing Benefit

The value of livestock forage per AUM for the Humboldt National Forest is $13.12/AUM in 1978 dollars (Kerry Gees, 1978). Permitted AUMs in the FORPLAN model were converted to actual AUMs by multiplying by .785, the "actual" vs. "permitted" average over the three year period: 1979-1981. The benefit value for livestock grazing thus is $10.30/permitted AUM.

c. Soil and Water

1. Increased Water Yield

The value for increased water yield used in the FORPLAN model is $5,000/M acre feet which is the value derived from the 1980 RPA Assessment. This benefit value is based on the assumption that it is equal to the marginal utility of the last increment of water in the closest consumptive use which is irrigation.

2. Sediment Reduction

The value for sediment reduction in the FORPLAN model is $1.16/m tons. The value derived from the 1980 RPA Assessment of $2.00/acre foot was converted into the $1.16 per thousand tons of sediment reduced.

d. Minerals

1. Local Mineral Benefit Value

The value for hard rock mineral production is 5 percent of the total dollar value produced on Humboldt National Forest lands (Source - R4-Plan Conference Message # 561 of 8/27/84).

2. Common Variety Mineral Materials

The average value received for common variety minerals is $ .25/ton (1978 dollars). This is the benefit value used for three outputs - Mineral Materials - sold, Mineral Materials - Free, and Mineral Materials - FS Use.

3. Lease Rentals - Energy

There is a $1.00/acre return to the treasury for lease rentals - energy and this value is also used in the FORPLAN model for the benefit value.

e. Special Use Permits

1. Non-recreational Special Use Permits

The average value received from non-recreation special use permits - charge for the Humboldt National Forest is $26.70/permit (1978 dollars). This is the benefit value places on all non-recreation special use permits - both charge and free use in the FORPLAN model.

2. Large Non-Recreation Special Use Permits

The Humboldt National Forest analyzed the average receipts from large non-recreation special use permits which consist of permits for electronic sites and arrived at a value of $1,880/permit (1978 dollars) which is the benefit value for this type of specail use permit used in the FORPLAN model.

3. Dispersed Recreation Special Use Permits

The Humboldt National Forest developed the average receipt for outfitter/guide special use permits on the Forest and determined a value of $36.00/permit (1978 dollars) which was used as the benefit value in the FORPLAN model.

f. Recreation/Wildlife and Fish

The values for the Humboldt National Forest for recreation visitor days and wildlife/fish user days are:

(1)	Big-game hunting	$23.10
(2)	Small game hunting	$26.80
(3)	Upland game hunting	$27.20
(4)	Waterfowl hunting	$32.00
(5)	Nature study - nongame	$29.00
(6)	Cold water fishing	$17.80
(7)	Other dispersed recreation	$ 3.00
(8)	Wilderness	$ 8.00
(9)	Wilderness hunting	$23.70
(10)	Wilderness fishing	$17.80

All values are in 1978 dollars and the source is the Region 4 file: VALUES.

B. Cost Development Process

Costs were developed by Forest personnel in conjunction with developing standards and guidelines for mangement prescriptions. The costs were based on historical data and professional judgment, and approximate the minimum funds needed to achieve the standards and guidelines in the management prescriptions. Cost data was used in developing feasible and cost-efficient prescriptions.

Costs dependent on prescription assignment were modeled in FORPLAN directly. By setting the FORPLAN objective function to maximize PNV, the cost-efficient level of agency expenditures for each prescription assignment was estimated for 50 years.

C. Cost Categories

Fixed Forest Service costs are the minimum expenditures necessary to meet legal requirements of ensuring public sagety and environmental protection. These costs are defined by the minimum level benchmark, do not vary by alternative and do not affect land management decisions. The costs include fixed ownership requirements, short-term maintenance of range allotments, timber, human and community, Job Corps, and general administration.

Variable costs vary with the controlled output level specified in each benchmark or alternative. They include capital investments (the costs or creating or enhancing capital assets over time), planning and inventory, and operation costs (including annual costs of administration, management and protection of existing resources and capital assets). Variable costs include the costs necessary to meet minimum management requirements which are in the standards and guidelines of planned activities.

Cooperator costs for the Humboldt National Forest are of two types. Agency cooperator costs (Nevada Department of Wildlife) are shown for each benchmark and alternative but are not directly treated as a cost. Livestock permittee contributed costs are treated as a cost and enter into calculation of PNV since they result in investments which increase the present net value of the Forest. These costs must be subtracted from the cost per period generated by FORPLAN runs to obtain the Forest Service budget requirements for a particular run.

D. Cost Increases

None of the basic unit costs are expected to increase above inflation over time. However, the average unit costs of some activities will increase through time as more expensive management activities are scheduled.

E. FORPLAN Cost Data by Resource Activity

Costs are associated with each resource output for livestock grazing, minerals, wood products, wildlife and fish, soil and water and recreation.

Calculating present net value by individual resource may be misleading because the costs include expenditures required to produce, enhance, or mitigate more than one resource. For example, range improvement costs are attributed to the range resource but influence outputs produced in wildlife and fish, or soil and water. Thus, the costs by resource output do not always have a direct relationship with the benefits by resource.

Costs by resource activity for the Humboldt National Forest are shown in Table B-1.

TABLE B-1
FORPLAN COST DATA BY RESOURCE ACTIVITY

ACTIVITY	UNIT	1978 UNIT COST
A01 Rec Planning	$$	N/A
A02 Recreation Inventory		
307 General Rec Inven	Inventory	$752/District Inventory
309 Cul Res Overview	Reports	$752/Report
310 Visual Qual Inven	Inventory	$1504/District Inventory
312 Visual Condit Inven	Inventory	$752/District Inventory
314 Rec Facility Inven	$$	$376/Year
308A Cultural Res Inv Rec	Acres	$1.88/Acre
308C Cultural Res Inv W/F	Acres	$1.88/Acre
308D Cultural Res Inv Rge	Acres	$1.88/Acre
308E Cultural Res Inv Wood	Acres	$1.88/Acre
308G Cultural Res Inv Min	Acres	$1.88/Acre
A03 Cultural Eval & Ass	Properties	$376/Property
A04 Cultural Resource Protection and Enhancement		
327 Cult Resource Enhance	Properties	$226/Property(Acre)
328 Cult Resource Protect	Properties	$752/Property(Acre)
A05 Fac & Site Reconst	PAOT	$1504/PAOT(5 PAOT's/Unit)
A06 Fac & Site Const	PAOT	$2256/PAOT(5 PAOT's/Unit)
A07 Facility & Site Management		
ASUD Rec Spuse-Dev Admin	Cases	$128/Case
AVFS Vis Full Service	PAOT Days	$2.17/PAOT Day
ADEF Developed Full Service	PAOT Days	$ .44/PAOT Day
AVRS Vis Reduced Service	PAOT Days	$ .74/PAOT Day
ADER Devel Reduced Serv	PAOT Days	$ .26/PAOT Day
A08 Use Administration-Dispersed		
ASUE Rec Spuse Disp Admi	Cases	$128/Case
ADIF Dispersed Full Service	Acres	$ .03/Acre
ADIR Disp Reduced Service	Acres	$ .017/Acre
A10 Trail Con/Rec		
A11 Trail Construction	Miles	$8496/Mile
A10 Trail Reconstruction	Miles	$7368/Mile

A12	Trail System Maintenance & Operation		
358	Trail Sys Operation	Miles	$ 8/Mile
3591	Trail Maint-Level 1	Miles	$ 38/Mile
3592	Trail Maint-Level 2	Miles	$ 56/Mile
3593	Trail Maint-Level 3	Miles	$ 75/Mile
3594	Trail Maint-Level 4	Miles	$113/Mile
3595	Trail Maint-Level 5	Miles	$150/Mile
B03	Wilderness Use Administration		
B01	Wilderness Planning	$$	N/A
BFSM	Wilder-Use Full Serv	Acres	$ .139/Acre
BRSM	Wilder-Use Reduc Serv	Acres	$ .056/Acre
C01	Surveys, Planning, RXS, Monitoring, Coop & Admin		
ST&M	WLF Studies & Monitor	Studies	$75/Trend Study
601T	Terrestrial Survey	Acres	$.56/Acre
601F	Fish Survey	Stream Mile	$51/Stream Mile
T&E	T&E Recovery Efforts	$$	N/A
606	Coop Other Agencies	$$	N/A
C02	Non Structural WL/F Habitat Improvement		
609W	Willow Planting	Stream Mile	$602/Stream Mile
609A	Aerial Seeding	Acres	$ 38/Acre
609B	Broadcast Seed Hand	Acres	$ 26/Acre
609P	Putr Seed	Acres	$2.63/Acre
609S	Putr Seedling	Acres	$226/Acre
609C	Rodent Control	Acres	$ 11/Acre
610M	Putr Release Mech	Acres	$ 26/Acre
610R	Putr Rel GR Spray	Acres	$ 15/Acre
610B	Prescribed Burn	Acres	$ 8/Acre
611C	Chaining One-Way	Acres	$ 26/Acre
611T	Chaining Two-Way	Acres	$ 34/Acre
611W	Chain & Windrow	Acres	$ 49/Acre
611D	Doze & Windrow	Acres	$ 23/Acre
611P	Doze - Push & Pile	Acres	$ 45/Acre
611M	Other Mechanical	Acres	$ 26/Acre
612	Spawn & Rear Hab Imp	Stream Mile	N/A
614	Fish Barrier Remove	Stream Mile	$226/Stream Mile
615	Fish Popn Control	Stream Mile	$188/Stream Mile
C03	Structural WL/F Habitat Improvement		
620P	Pothole Const	Structures	$ 376/Structure
620W	H20 Fowl Pond Const	Structures	$1504/Structure
622S	Guzzler & Spr Dev	Structures	$2256/Structure
622H	Horiz Well & Spr Dev	Structures	$1519/Structure
623D	Doze & Windrow	Acres	$ 23/Acre
623P	Doze, Push & Pile	Acres	$ 45/Acre
623C	Chain & Windrow	Acres	$ 49/Acre
624E	3 Phase Exclo Const	Structures	$2917/Structure
624F	Protective Fenc Con	Structures	$ 752/Structure
627	Stream Struc Const	Structures	$ 752/Structure
628G	Small Gabion Const	Structures	$1015/Structure
628L	Large Gabion Const	Structures	$5263/Structure
628F	Stream Fence Const	Miles	$3008/Mile

C04	WL/F Structural Habitat Maintenance			
	635P	Pothole Main	Structures	$ 19/Structure
	635W	H20 Fowl Pond Maint	Structures	$132/Structure
	637S	Guzzler & Spr Maint	Structures	$113/Structure
	637H	Horiz Well & Spr Maint	Structures	$ 79/Structure
	639E	3-Phase Exclo Maint	Structures	$146/Structure
	639F	Protective Fence Mnt	Structures	$ 38/Structure
	642	Fish Feed & Rear Mnt	Structures	$ 78/Structure
	643G	Small Gabion Maint	Structures	$ 78/Structure
	643L	Large Gabion Maint	Structures	$301/Structure
	643F	Fence Maint	Miles	$150/Mile
DDCO	NDOW's Share Wildlife Work			
	NC01	NDOW's Share of C01	Persondays	$105/Personday
	NC02	NDOW's Share of NONSTR	Persondays	$105/Personday
	NC03	NDOW's Share of Struc	Persondays	$105/Personday
D01	Range Resource Planning			
	201	Initial Range Plans	Plans	$3759/Plan
	202	Updating Range Plans	Plans	$1880/Plan
D02	Range Resource Inventory			
	206	Initial Range Anal	Acres	$ .55/Acre
	207	Updating Range Anal	Acres	$ .55/Acre
	DSTU	Benchmark Studies	Studies	$75/Trend Study
D03	Range NonStructural Improvement			
	DBUR	Prescribed Burn	Acres	$ 8/Acre
	DASP	Aerial Spraying	Acres	$16/Acre
	DGSP	Ground Rig Spray	Acres	$15/Acre
	DRIL	Rangeland Drill	Acres	$26/Acre
	DABC	Aerial Broadcast	Acres	$19/Acre
	DHBC	Hand Broadcast Seed	Acres	$26/Acre
	DINT	Interseeding	Acres	$30/Acre
	DBDP	Seed Bed Prep	Acres	$11/Acre
	DMUL	Mulching	Acres	$56/Acre
	DCHO	Chain One Way	Acres	$26/Acre
	DCHT	Chain Two Way	Acres	$34/Acre
	DCHW	Chain & Windrow	Acres	$49/Acre
	DOZW	Doze, Windrow	Acres	$23/Acre
	DOZP	Doze, Push & Pile	Acres	$45/Acre
	DMEC	Other Mechanical	Acres	$26/Acre
	DFEN	Fertilizer, N2	Acres	$11/Acre
	DFEP	Fertilizer P	Acres	$19/Acre
	DROC	Rodent Control	Acres	$11/Acre
	DPPD	Poison Plant Contl	Acres	$94/Acre
	DNWT	Noxious Weed Tordon	Acres	$94/Acre
	DNWO	Noxious Weed Other	Acres	$53/Acre

D04	Range NonStructural Improvement Mtn		
	DNFE N2 Fertilizer	Acres	$11/Acre
	DPFE P Fertilizer	Acres	$19/Acre
	DRCO Rodent Control	Acres	$11/Acre
	DTOR Tordon-Noxious Weed	Acres	$94/Acre
	DONW Other Noxious Weeds	Acres	$53/Acre
D05	Range Structural Improvments		
	2184 4WIR Fen Con-All FS	Miles	$2406/Mile(FS Matls&Labor)
	D184 4WIR Fen Material FS	Miles	$1128/Mile(FS Materials)
	2183 3WIR Fen Con All FS	Miles	$2331/Mile(FS Matls&Labor)
	D183 3WIR Fen Material FS	Miles	$1053/Mile(FS Materials)
	218L Letdwn Fence All FS	Miles	$2632/Mile(FS Matls&Labor)
	D18L Letdwn Fen Matls FS	Miles	$1203/Mile(FS Materials)
	218N Netwire Fenc All FS	Miles	$2782/Mile(FS Matls&Labor)
	D18N Netwire Fenc Matls FS	Miles	$1504/Mile(FS Materials)
	218P Post&Pol Fen All FS	Miles	$7519/Mile(FS Matls&Labor)
	D18P Post&Pol Fen Matls FS	Miles	$3759/Mile(FS Materials)
	218B Buck&Pol Fen All FS	Miles	$6767/Mile(FS Matls&Labor)
	D18B Buck&Pol Matls FS	Miles	$3383/Mile(FS Materials)
	218S Suspen Fence All FS	Miles	$2030/Mile(FS Matls&Labor)
	D18S Suspen Fen Matls FS	Miles	$ 902/Mile(FS Materials)
	218R Fence Removal FS	Miles	$ 677/Mile(FS Labor)
	218G Ctlguard Install FS	Structures	$2105/Structure(FS Mt&Lbr)
	D18G Ctlguard Matls FS	Structures	$1579/Structure(FS Matls)
	218H Holdng Corral Con FS	Structures	$3093/Structure(FS Mt&Lbr)
	D18H Holdng Corral Matls FS	Structures	$1203/Structure(FS Matls)
	218C Ctl Trough VEH, FS	Structures	$1053/Structure(FS Mt&Lbr)
	D18C Ctl Trough Matls FS	Structures	$ 451/Structure(FS Matls)
	218D Ctl Trough Helo, FS	Structures	$1353/Structure(FS Helo & Matls & Labor)
	D18D Trof & Helo No Labor	Structures	$ 752/Structure(FS Helo & Matl w/permitee Lbr)
	218T Sheep Trof Instal FS	Structures	$2256/Structure(FS Mt&Lbr)
	D18T Sheep Trof Matls FS	Structures	$ 827/Structure(FS Matls)
	218X Pipeline & Ctl Trof FS	Structures	$3008/Structure(Mile pipe & trough FS Mt&Lbr)
	D18X Pipeline & Trof Matl FS	Structures	$1805/Structure(Mi. FS Mt)
	218Y Horiz Well & Trof FS	Structures	$2105/Structure(FS Mt&Lbr)
	D18Y Hor Well & Tro Matl FS	Structures	$1429/Structure(FS Matl)
	218Z Pit Tank Cons All FS	Structures	$ 376/Structure(FS Eq&Lbr)
	D18Z Pit Tank Con Admin FS	Structures	$ 75/Structure(FS Admin)
	218E Earthdam Con All FS	Structures	N/A Cost Evaluated on a Site Specific Basis
	D18E Earthdam Admin FS	Structures	N/A
	DTRL Stock TR Con/Recon	Miles	$1880/Mile(FS Matls&Labor)

D06	Range Structural Improvement Maintenance (By Forest Service)		
	D4WM FS 4-Wire Fence Mtn	Miles	$ 38/Mile
	D3WM FS 3-Wire Fence Mtn	Miles	$ 38/Mile
	DLDM FS Letdown Fen Mtn	Miles	$ 38/Mile
	DNWM FS Netwire Fen Mtn	Miles	$ 38/Mile
	DPPM FS Post & Pole Mtn	Miles	$ 38/Mile
	DBPM FS Buck & Pole Mtn	Miles	$ 38/Mile
	DSFM FS Suspension Mtn	Miles	$ 38/Mile
	DCGM FS Ctl Guard Mtn	Structures	$ 19/Structure
	DHCM FS H Corral Mtn	Structures	$ 19/Structure
	DCTM FS Ctl Trough Mtn	Structures	$ 13/Structure
	DSTM FS Sheep Trough Mtn	Structures	$ 13/Structure
	DPCM FS Pipe & Trough Mtn	Structures	$ 19/Structure(Mi Pip&Tro)
	DWCM FS Well & Trough Mtn	Structures	$ 13/Structure
	DPTM FS Pit Tank Mtn	Structures	$4.89/Structure
	DEDM FS Earth Dam Mtn	Structures	$135/Structure
PPCO	Permittee Share Cost & Labor		
	PD03 Per Sh Non Stru Imp	Acres	N/A
	PD04 Per Sh Non Stru Mtc	Acres	N/A
	P184 Per Sh 4-Wire Con/Rec	Miles	$1278/Mile
	P183 Per Sh 3-Wire Con/Rec	Miles	$1278/Mile
	P18L Per Sh Letdwn Con/Rec	Miles	$1429/Mile
	P18N Per Sh Netwir Con/Rec	Miles	$1278/Mile
	P18P Per Sh P&P Con/Rec	Miles	$3759/Mile
	P18B Per Sh B&P Con/Rec	Miles	$3384/Mile
	P18S Per Sh Sus Fe Con/Rec	Miles	$1128/Mile
	P18R Per Sh Fence Removal	Miles	$ 677/Mile
	P18G Per Sh Ctl Guard Ins	Structures	$ 526/Structure
	P18H Per Sh Holdcorral In	Structures	$1880/Structure
	P18C Per Sh Ctltrof Veh	Structures	$ 602/Structure
	P18D Per Sh Ctltrof Helo	Structures	$ 902/Structure
	P18T Per Sh Sheeptrof Ins	Structures	$1429/Structure
	P18X Per Sh Pipe & Ctl Tro	Structures	$1203/Structure
	P18Y Per Sh Hor Well & Tro	Structures	$ 677/Structure
	P18Z Per Sh Pit Tan Con	Structures	$ 301 Structure
	P18E Per Sh Earthdam Con	Structures	N/A
D07	Range Administration and Management		
	223 Appl, Permit Issue & Mod	Permits	$211/Permit
	224 Annual Op Plans	Plans	$ 30/Plan
	225 User Meetings	$$	N/A
	226 Allot & Territor Exams	$$	N/A
	227 Permit Admin	$$	N/A
	228 Agency Coordination	$$	N/A
	229 Landowner Coordinate	$$	N/A
	230 Range Info Mgt/Records	$$	N/A
	231 Wildhors Protect & Mgt	$$	N/A
	232 Capture & Place Wildhors	Horse Cap.	$ 75/Horse Captured
E00	Timber Plan and Inventory	Acres	$ .38/Acre
E05	TSI	Acres	$75/Acre

E07	Timber Harvest Administration		
	EPSP Pinenut Sale Prep	# Sales	$113/Sale
	EPGP Post Grn Firewd Prep	# Sales	$113/Sale
	EXTP Xmas Tree Sale Prep	M Trees	$451/M Trees
	EPNA Pinenut Adm	# Sales	$230/Sale
	EPGA Post Grn Firewd Amd	# Sales	$230/Sale
	EXTA Xmas Tree Admin	M Trees	$301/M Trees
479	Free Use & Admin FU	Permits	$ 8/Permit
480	Charge Permits	Permits	$15/Permit
F01	Water, Soil and Air Inventory		
	250 Soil Inven Order 3	Acres	$ .38/Acre
	253A H2OShed Condt Inven	Acres	$ .09/Acre
	253B Detailed H2O Inven	Acres	$ .38/Acre
	F05A Project Reports	Reports	$ 113/Report
	F05B Major/Ncss Reports	Reports	$1504/Report
F07A	Rights/Use Mgt Rec	Filings	$376/Filing
F07C	Right/Use Mgt W/F	Filings	$376/Filing
F07D	Rights/Use Mgt Rge	Filings	$376/Filing
F07F	Rights/Use Mgt S&W	Filings	$376/Filing
F08	Soil & Water Resource Improvement Maintanence		
	FSGM Small Gabion Mtn	Structures	$ 75/Structure
	FLGM Large Gabion Mtn	Structures	$301/Structure
	F08A Resource Imp Mtn Oth	Acres	N/A
F09	Monitoring		
	F09A Basic Monitoring	Stations	$ 30/Station
	F09B Basic & Macroinvert	Stations	$154/Station
	F09C Basic & Chemical Anal	Stations	$143/Station
G01	General Technical Inventory & Evalaution		
	G01A Inven-Exch, Withdraw	Acres	$ 2/Acre
	G01B Lit Review, Rpt Prep	Acres	$.08/Acre
	G02 Site Spec Tech Inves	Acres	$226/Acre
G03	Process Esp Proposal		
	G03A Prospecting Permits	Cases	$128/Case
	G03B Notices of Intent	Cases	$ 75/Case
	G05 Site Spec Dev Propos	Plans	$301/Plan
G04	Process Lease Appl	Leases	$226/SO Cost + $ 75/Dist Cost
G06	Admin of Ops		
	G06A Compliance Inspections	Op Plans	$150/Plan
	G06B Reclamaiton Inspections	Projects	$451/Project
G07	Contest Hearing Appeal	Cases	$7519/Case

G08	Reserve Outstd Right	Cases	$ 301/Case
H04	SCSEP Program	Enrollee Yr	$3684/Enrollee Yr
H06A	Volunteers in NF	Enrollee Yr	$301/Enrollee Yr
H06C	Volunteers in NF	Enrollee Yr	$301/Enrollee Yr
H06D	Volunteers in NF	Enrollee Yr	$301/Enrollee Yr
H06F	Volunteers in NF	Enrollee Yr	$301/Enrollee Yr
J01G	Sp Use Mgt (Non-Rec)	Cases	$128/Case
J01	Sp Use Mgmt (Non-Rec)		
	J050 App, Ament, Trans	Cases	$128/Case
	J051 Adm Insp Fee Review	Cases	$ 75/Case
J03	Federal Energy Regulatory Commission License and Permits		
	J058 Planning & Analyses	Applic	$1880/App Dist Cost $1880/App SO Cost
J04	Withdraw-Mod-Revoc	Cases	$ 376/Case
J05	Land Status Mtn	$$	$ 75/Year/District
J06	Property Bdy Loc	Miles	$4361/Mile
J07	Prop Bdy Corner Mtn	Miles	$ 150/Mile
J10	Encroachment	Cases	$ 752/Case
J13	Land Exchange	Acres	$ 8/Acre SO Cost $ 8/Acre Dist Cost
J18	Row Acquisition	Cases	$13534/Case SO Cost $ 752/Dist
J22	Forest Level Planning	$$	N/A
J23	RPA Assessment	$$	N/A
L01	Trans Planng & Inven	$$	$12030/Year
L04, L02, L03	Arterial Road Preconst, Const Engineering & Const Costs		
L04	Aterial Rd Const	Miles	$33835/Mile
L05	Aterial Rd Reconst	Miles	$26316/Mile
L08, L07, L06	Collector Road Preconst, Const Engineering & Const Costs		
L08	Coll Rd Const Costs	Miles	$20677/Mile
L09	Collector Rd Reconst	Miles	$18797/Mile
L12, L11, L10	Local Road Preconst, Const Engineering & Const Costs		
L12	Local Rd Const Cost	Miles	$13158/Mile
L13	Local Rd Reconst	Miles	$11279/Mile

L18, L17, L16	Bridge & Major Culvert Preconst, Const Enginr & Const Costs		
L18	BR & MJ Culvt Const $	Structures	$21429/Structure
L19	Road Operation		
	746 Road Mtn Level 1	Miles	$ 38/Mile
	748 Road Mtn Level 2	Miles	$263/Mile
	750 Road Mtn Level 3, 4, & 5	Miles	$508/Mile
L745	Rd Maintenance Mgt	$$	$684/District/Year
L24	FA&O Const/Reconst	$$	$37594/Project
L25	FA&O Fac Mtn	$$	N/A
L28	Dam Admin & Mgt	Dams	$150/Dam
L30	Potable H20 Const/Re	Systems	$37594/System (FA&O)
L30A	Potable H20 Const/Re	Systems	$37594/System (Rec)
L31	Potable H20 Op & Mtn	Systems	$1138/System (FA&O)
L31A	Potable H20 Op & Mtn	Systems	$1128/System (Rec)
L31C	Potable H20 Op & Mtn	Systems	$1128/System (WL&F)
L31D	Potable H20 Op & Mtn	Systems	$1128/System (Rge)
L31G	Potable H20 Op & Mtn	Systems	$1128/System (Min)
L33	Radio System Planning	$$	$ 2632/Year
L34	Radio System Op & Mtn	$$	$27068/Year
L34	Radio System Const	$$	N/A
L42	Datacomm System Planning	$$	$2632/Year
L44	Datacomm Sys Op & Mtn	$$	$3760/Year
L43	Datacomm System Const	$$	N/A
P01	Fire Mgt Plan & Anal	$$	N/A
P02	Fire Prevention	$$	N/A
P03	Fire Detection	$$	N/A
P05	2nd Attack Force	$$	N/A
P07	Fire Support Fac Ser	$$	N/A
P11	Treat Activity Fuels	Acres	$30/Acre
P12	Treat Natural Fuels	Acres	$30/Acre
P24A	Law Enforcement	$$	N/A
P24E	Law Enforcement	$$	N/A
P24J	Law Enforcement	$$	N/A

P25	Coop Law Enforcement	$$	N/A
T01	Line Mgt	$$	N/A
T02	Program Support	$$	N/A
T03	Common Services		
	665 Rent	$$	N/A
	666 Communications	$$	N/A
	667 Utilities	$$	N/A
	668 Equip Purc & Lease	$$	N/A
	669 Supplies	$$	N/A
	670 EDP Costs (No Salary)	$$	N/A
	672 USDA Serv Cen Assess	$$	N/A
TWCF	WCF Admin	$$	N/A
U01A	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U01C	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U01D	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U01E	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U01F	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U01G	Program Planng & Admin	$$	N/A
	U02 Clerical Wk Project	$$	N/A
U04A	Mtn & Horse Replace	Animals	$451/Horse/Year
U04D	Mtn & Horse Replace	Animals	$451/Horse/Year
MPFA	Mtce Project Facilities	$$	N/A
MPFC	Mtce Project Facilities	$$	N/A
MPFD	Mtce Project Facilities	$$	N/A
MPFE	Mtce Project Facilities	$$	N/A
MPFF	Mtce Project Facilities	$$	N/A
MPFQ	Mtce Project Facilities	$$	N/A
MISC	Misc. Costs (S.O.)	$$	N/A

C. Demand Assumptions

For Forest outputs, it is assumed that prices do not vary with the quantity of outputs produced at various levels.

Trend Assumptions

It is assumed for this analysis that real prices and costs remain constant over the planning period. Inflation was not included in the discount rates, benefits, and costs due to the difficulty of estimating future inflation rates and because inflation would equally affect both costs and prices.

D. Interest Rate (Discounting) Assumptions

Two discount rates representing the cost of money over time were used in the FORPLAN model. For evaluation of long term investments in land and resource management, a 4 percent real discount rate is used. A 7-1/8 percent rate, which is consistent with the 1980 RPA, is used on all benchmarks and alternatives. This was done to determine the sensitivity of alternatives, particularly the preferred alternative to variations in the discount rate.

V. SOCIO-ECONOMIC IMPACT ANALYSIS

A. Introduction

The Forest Service has been directed by Congress to estimate the social effects of different Forest management alternatives under NFMA (36 CFR 219.5(g)) and NEPA (40 CFR 1508.14).

Forest Service land management activities affect the local, regional, and national economies in two ways. First, the flow of Forest resource outputs from the management activities influences market transactions at the local, regional, and national levels. Secondly, the Forest Service purchases goods or services from the local or regional economy in order to conduct these management activities, and Forest Service employees use their salaries to buy goods and services. These relationships between the Forest and local or regional economies affect employment, income, and state and local government revenues. These impacts may further affect the social well being of the people living in the impact area.

This analysis, using a regional input/output model estimates changes in employment, income, and population brought on by different Forest management alternatives. The analysis also estimates whether or not these changes will affect such social variables as lifestyles, attitudes, beliefs, values, social organization, population, and land use within the impact area.

B. Determination of Impact Area (ZOI)

It was determined that the primary zone of infuence (ZOI) for the Humboldt National Forest consists of Elko, Humboldt, Lincoln, Nye, and White Pine Counties in Nevada. This area was designated as the primary ZOI because the location of the National Forest lies within these county boundaries, and because they would receive the direct impacts from the Forest's management activities and outputs.

A secondary Zone of Influence includes Twin Falls, and Owyhee Counties in Idaho and Millard County in Utah. These areas, however, are not directly affected by the actions of the Humboldt National Forest, although the Humboldt does provide recreational opportunities, fuelwood, and grazing permits for many residents in these areas.

C. Economic Impact Model

1. IMPLAN

An input/output economic model (IMPLAN) was developed and used in response to several of the 36 CFR 219 regulations dealing with socio-economic impact analysis.

IMPLAN uses economic input/output analysis to develop interindustry models that assist in estimation of local or regional impacts from various land management programs.

Economic input/output (I/O) analysis is widely accepted as a procedure for describing the structural interdependencies of regional economies or impact areas. It also serves as a short-term predictive model for evaluating the effects of shifts in exogenous demand (changes in Forest outputs and activities) on regional or local economies.

I/O analysis is based upon the interdependence of production and consumption sectors in the impact area. Industries must purchase imports from other industries, as well as primary sources like natural resources, for use in the production of outputs which are sold either to other industries or to final consumers. These flows of inputs and outputs are traced to show linkages between the industries composing a regional or local economy. An input/output matrix describing these linkages can be transformed into a system of simultaneous equations which permits the prediction of economic effects that would result from a change in exogenous demand (Forest outputs or activities). The use of the simultaneous equations can indicate changes in employment, income and population in the impact area.

Input/output analysis is based on a number of assumptions that limit the accuracy of projections. Therefore, the numbers presented are relative indicators rather than absolute projections.

2. IMPLAN Data Base

The data base for the IMPLAN model consists of two major parts: 1) A national level technology matrix and 2) estimates of sectorial (466 sectors) activity for final demand, final payments, gross output, and employment on a county by county basis.

The national technology matrix denotes sectorial production functions which are used to estimate local purchases and sales. This matrix is based on a 1972 Commerce Department I/O model converted to an industry by industry basis and updated to 1977 by relative price changes and RAS procedure.

The 1977 estimates of the 466 industrial sectors on a state and county level was developed by Engineering Economics Associates of Berkeley, California.

By using the national technology matrix and the estimates of sectorial activities on a county-by-county basis, more localized production functions are developed to estimate local purchases and sales.

3. Impact Area Models Derived From IMPLAN

For the purpose of performing the economic impact analysis on the identified primary ZOI, it was necessary to develop four sub-models from the IMPLAN model. This would allow for localized projections of employment, income, and population brought on by changes in Forest outputs and activities (final demand).

The first model was developed for Humboldt County. This area was originally supported by mining, but as the ore was depleted, agriculture and services became the dominant activities. For this model, similar industrial sectors were aggregated so that there could be a clearer understanding of the impacts. The SMASH program for IMPLAN aggregated 59 industrial sectors to 28. Data within the REGION or ALTER programs were not modified for this model.

The second model was developed for Elko County. Recently, tourism and government have overtaken railroads, agriculture, and mining as the principal industries. However, mining is back on the rise and agriculture is still important. The SMASH program for this IMPLAN model aggregated 61 sectors to 32. Data within the REGION or ALTER programs were not modified for this model.

The third model was developed for White Pine County. The major industry in this area used to be copper mining, but these mining operations have ceased and the population has decreased. An anticipated power generation plant may change this trend however. The SMASH program for the IMPLAN model aggregated 53 sectors to 28. Data within the REGION or ALTER programs were not modified for this model.

The fourth model includes the counties of Lincoln and Nye. The leading sectors in these counties are services and Government, especially the Department of Defense. A small acreage of Humboldt National Forest land lies within these counties, and Nye County is affected more by the Toiyabe National Forest. The SMASH program for this IMPLAN model aggreageted 61 sectors to 31. Data within the REGION or ALTER programs were not modified for this model.

Sector	Camping $/RVD	Pinicking $/RVD	Dispersed Motorized $/RVD	Dispersed Non-Motor $/RVD	Big Game Hunt $/WFUD	Nature Study $/WFUD	Small Game Hunt $/WFUD	Cattle Grazing $/AUM	Sheep Grazing $/AUM	Fishing $/WFUD
Livestock	0	0	0	0	0	0	0	24.80	73.40	0
Sawmills	0	0	0	0	0	0	0	0	0	0
Hotel & Lodging	.26	1.30	2.16	1.85	.52	5.21	.71	0	0	.84
Eating & Drinking	0	0	4.45	3.80	1.09	1.46	.64	0	0	1.07
Food & Kindred*	1.65	3.20	2.45	2.52	2.13	.49	1.21	0	0	1.17
Sporting Goods Manufacturing	.50	2.70	.33	1.34	2.34	.38	2.05	0	0	.66
Amusement and Recreation	.03	0	.38	.60	2.71	.30	0	0	0	.30
Wholesale Trade	.59	1.56	.68	.60	2.20	1.30	2.56	0	0	1.05
Retail Trade	.90	2.64	.82	.87	3.04	1.30	2.94	0	0	1.12
Auto Repair and Service	.05	.15	.13	.13	.23	.13	.33	0	0	.13

* The number shown is the total expenditure among 46 industrial sectors. If only five of those 46 sectors exist within a local economy, only 5/46 of that expenditure is used. (The Humboldt model has 4 sectors in Food and Kindred, the Elko model had 2 sectors, the White Pine model had no sectors, and the Lincoln and Nye model had 1 sector.)

D. Final Demand Expenditures

The I/O model translates Forest outputs and activities into employment and income impacts. An intermediate step is the translation of outputs in final demand dollars. Final demand expeditures represent consumer's willingness to pay for finished goods derived from Forest outputs. Final demand expenditure data was estimated for those industrial sectors which would be directly affected by a change in a Forest output or activity.

For the IMPLAN sub-models, expenditure data were developed for eight outputs produced from the Forest. These outputs are big game hunting, small game hunting, nature study, fishing, developed recreation, dispersed recreation, grazing, Forest Service purchases, and Forest Service salaries. The final demand expenditures are based on dollars per unit of Forest output which are linked to those industrial sectors where the direct expenditure takes place. The following final demand expenditures by sector, by output, were used (in 1977 dollars):

The following percentages were used to determine weighted average final demand expenditures for various Forest outputs:

Outputs	Percent
Developed Recreation	
Camping	76
Picnicking	24
Dispersed Recreation	
Dispersed Motorized	46
Dispersed Non-Motorized	54
Grazing	
Sheep Grazing	19
Cattle Grazing	81

The final demand expenditures were further refined by the assumption that for every dollar a resident spends in the local economy, a nonresident spends $0.25. Therefore, a factor was developed to apply to all final demand estimates to compensate for this assumption. The equation used to determine the new final demand expenditures was:

$$\%R(E) + \%NR(.25) = (\%R + \%NR(.25))E$$

Where: %R = percent of use by residents
%NR = percent of use by non-residents
E = the final demand expenditure

The following table shows the percent of resident and nonresident use by County and activity:

Activity	Humboldt	Elko	White Pine	Lincoln/Nye
Recreation				
Percent Resident Use	80	25	45	45
Percent Nonresident Use	20	74	65	55
Hunting and Fishing				
Percent Resident Use	80	50	50	53
Percent Nonresident Use	20	50	50	47

E. Determination of Forest Outputs by Model Area

Since the FORPLAN model did not track the same outputs as the IMPLAN model needed, and since most of the outputs could not be disaggregated to the county groups, various percentages of outputs from the FORPLAN model were used in the IMPLAN models. These percentages were:

		IMPLAN MODEL			
IMPLAN Input	FORPLAN Output	Humboldt	Elko	White Pine	Lincoln Nye
F.S. Salary	Total Costs*	4.29%	44.20%	10.17%	0%
F.S. Purchases	Total Costs*	3.11%	32.00%	6.23%	0%
Big Game					
	Big Game Hunt				
	Wilderness Hunt				
	Total	3.00%	64.00%	32.10%	0.90%
Small Game					
	Small Game Hunt				
	Upland Game Hunt				
	Waterfowl Hunt				
	Total	10.10%	63.20%	36.10%	0.60%
Nature Study	Nature Study	0%	68.00%	32.00%	0%
Developed Rec.					
	Developed-Public				
	Developed-Private				
	Total	6.70%	60.50%	32.10%	0.70%
Dispersed Rec.					
	Motorized Dispersed Use				
	Non-Motorized Dispersed Use				
	Wilderness Use				
	Total	6.00%	68.10%	25.00%	0.90%
Grazing	Permitted Use	19.60%	67.50%	11.30%	1.60%
Fishing					
	Fishing				
	Wilderness Fishing				
	Total	5.00%	82.00%	13.00%	0%

*Costs used were total costs minus Permittee Contributions.

F. Estimated Impacts on the Primary Zone of Influence

Chapter IV of the DEIS contains the estimated impacts of each alternative on employment; income; lifestyles; attitudes, beliefs, and values; social organization; and population and land use.

IV. ANALYSIS PRIOR TO ALTERNATIVE DEVELOPMENT

A. INTRODUCTION

The Analysis of the Management Situation (AMS) was the major analysis step prior to beginning the development of management alternatives. In summary, the AMS provided the parameters for formulating a broad range of alternatives by:

1. Examining the Forest's capability of providing goods and services in a series of "Benchmarks", or minimum-maximum displays.
2. Projecting the demands for goods and services.
3. Analyzing the potential to resolve issues and concerns, and
4. Determining the need to change management direction.

The results of the AMS form the "sideboards" or framework within which viable alternatives can be formulated.

B. MINIMUM MANAGEMENT REQUIREMENTS (MMR)

Minimum management requirements are defined in the NFMA Regulations (36 CFR 219.27). A summary listing of the MMRs follows:

1. Conserve soil and water resource productivity.
2. Minimize hazards from natural physical forces such as fire and flood.
3. Prevent or reduce hazards and damage from pest organisms.
4. Protect riparian areas.
5. Maintain or enchance plant and animal diversity.
6. Provide fish and wildlife habitat neeed to maintain viable populations.
7. Protect threatened and endangered species habitat.
8. Provide for transportation and utility corridors.
9. Develop road design and construction guidelines and standards.
10. Provide for revegetation of temporary roads.
11. Maintain air quality.
12. Assure that harvested lands can be adequately restocked within 5 years.
13. Limit harvest openings to 40 acres maximum.
14. Adhere to multiple use and environmental protection laws (Multiple-Use Sustained Yield Act of 1960 and the National Environmental Policy Act of 1969).

Several methods were used to meet the above listing of minimum management requirements (MMR). These include:

- Devlopment of standards and guidelines for each prescription.
- Development of a variety of prescriptions for each analysis area so a range of management options was available.
- Applying FORPLAN modeling constraints for individual or groups of analysis area to limit access, set certain output levels, or to assign specific prescriptions.

1. Modeling Constraints

Very few modeling constraints were used by the Humboldt in meeting MMR. This low usage was partially due to the availability of a wide range of possible prescription assignments, but also was a result of the perceived desirability of allowing the model to freely reach optimal solutions for the objective function.

The constraints commonly used for meeting MMRs were:

a. Setting output yields equal to, greater than, or less than specified levels. While this set of constraints generally does not relate directly to MMRs, it does affect such factors as creating or maintaining wildlife habitat and visual diversity. It is considered to be indirectly responsive to MMR 1, 2, 3, 4, 5, 6, 11, 13, and 14. Use of this type of constraint varied from alternative to alternative, based on the alternative objective.

b. Assigning specific prescriptions to analysis areas or groups of analysis areas. This type of constraint was generally not directly responsive to MMR. It was used primarily for manipulation of areas assigned to wilderness in the roadless area reevaluation. However, some use of this type of constraint was also made to identify high priority areas for livestock and wildlife habitat investments. Another use was identifying and "locking in" areas such as potential Research Natural Areas. A third use of the Management Emphasis constraints was to "lock out" or prevent prescriptions from being applied to particular analysis areas. Indirectly, the Management Emphasis constraints were responsive to MMR 3, 5, 6, and 14.

Minimum Management Requirements 7, 8, and 12 were responded to by the development of the standards and guidelines and by the development of the wide range of prescriptions for each analysis area. For certain contiguous analysis areas, MMRs are embedded in the prescriptions and handled prior to FORPLAN analysis.

2. The various constraint sets listed in 1 above were used simultaneously in most or all benchmarks and alternatives. While several different combinations were used, incompatible combinations resulted in infeasible solutions or "crashed" runs when logic checks in the model prevented even infeasible solutions. The use of three different methods of meeting MMRs and the low number of modeling constraints used prevented accidental compounding of constraint effects.

C. BENCHMARKS

Eight "benchmarks" were developed to define the capability of the Humboldt National Forest to produce goods and services, to provide some economic comparison control points for comparing various management philosophies or strategies (alternatives), and to determine the ability to be responsive to the major issues and concerns.

These benchmarks are described in the AMS document on file in the Supervisor's Office of the Humboldt National Forest. A list of the numbers and names follows:

1. Minimum Level
2. Current Management with Outputs Maintained
3. Maximum PNV using Market Prices
4. Maximum PNV using Assigned Prices
5. Maximum Range
6. Maximum Wildlife (Big Game)
7. Minimum Wilderness (same as #3)
8. Maximum Wilderness

The later two benchmarks are required as a result of the 1983 decision to reevaluate all inventoried roadless areas for their wilderness potential.

1. OBJECTIVES, CONSTRAINTS, AND ASSUMPTIONS

A common constraint used for all benchmarks is that the existing Jarbidge Wilderness Area will continue to be managed as wilderness.

a. Benchmark 1 - Minimum Level

Objective: This benchmark is intended to display the minimum cost to maintain the National Forest status of the Humboldt National Forest. It is, in effect, a custodial or near custodial management philosophy.

Objective Function: The objective function used for the FORPLAN solution is to minimize costs for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, only the No Action-Current Budget, All Low and Wilderness prescriptions were allowed to come into solution in the FORPLAN run. These three prescriptions were known to be the lowest cost prescriptions from many prior runs made to clean up and check input data in the various prescriptions and the FORPLAN run was limited to them in order to reduce the size of the matrix generated and lower the cost of the run. The S.O. Dummy prescription used was Current Budget.

Extra Analysis: Due to the fact that the Humboldt did not have a true minimum level prescription, this FORPLAN run resulted in prescriptions being applied which produced a full range of outputs produced. The run was then adjusted outside of FORPLAN to remove all commodity production costs and outputs produced to meet the true minimum level objective. It was felt that the benefit from time and money savings from this approach far outweighed the benefits of developing a new prescription for all 62 analysis areas and doing another FORPLAN run.

b. Benchmark 2 - Current Management with Outputs Maintained

Objective: This benchmark is intended to display the effects over time of continuing the current direction of the Forest while maintaining outputs for the first decade.

Objective Function: The objective function used for the FORPLAN solution is to maximize PNV for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness area, analysis areas 352, 359, 360, 367, 371, 372, and 391 were "locked in" to the Wilderness prescription and all other areas were "locked in" to the No Action - Current Budget prescription. The S.O. Dummy prescription used was Current Budget.

Extra Analysis: After the initial FORPLAN run was analyzed it was determined that developed recreation outputs were declining during the first ten years. In order to meet the requirement of nondeclining outputs during the first ten years, the benchmark was run again to maintain those outputs. The livestock permitted use (AUMs) output also declines during the first ten year period, however, this is necessary in all prescriptions to bring permitted use into line with range capacity.

Assumptions: It was assumed that T&E species would not be adversely affected and that no major changes would occur in the current directions and policy.

c. Benchmark - 3 Maximum PNV Using Market Prices

Objective: This benchmark is designed to display the maximum present net value attainable if market goods, commodity production was emphasized.

Objective Function: The objective function of this benchmark was to maximize PNV for 10 periods (50 years) using only output benefit values that produce a return to the treasury and all costs.

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, the S.O. Dummy prescription was Current Program.

Assumptions: It was assumed that T&E species would not be adversely impacted. It was also assumed that budget levels would fluctuate and that while no values (benefits) were assigned to non-market outputs such as wildlife and dispersed recreation, costs incurred for these non-market outputs must be included.

Note: No new wilderness areas were picked by FORPLAN for this run, therefore the Minimum Wilderness Benchmark is the same as Maximum PNV using Market Values.

d. Benchmark 4 - Maximum PNV Using Assigned Values

Objective: This benchmark is intended to display the maximum present net value that can be attained through management of the Humboldt National Forest. In effect, this benchmark sets the outer parameter for economic efficiency for the Forest.

Objective Function: This benchmark was run against an objective function of Maximize PNV for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, the S.O. Dummy Prescription used was Current Budget.

Assumptions: The common assumptions that all goods are marketable and that T&E species habitat would not be impacted are applicable. It is also assumed that budget levels would fluctuate as needed to maximize the present net worth.

e. Benchmark 5 - Maximize Range

Objective: This benchmark displays the maximum permitted AUMs the Humboldt National Forest can provide while maximizing present net value.

Objective Function: The objective function used was maximize PNV for 10 periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. The FORPLAN model was given free choice between all prescriptions for all analysis areas. The S.O. dummy was "locked in" to the Current Program prescription. The following additional constraints were applied:

CONSTRAINT	TIME INTERVAL	AMOUNT
OTDE	1	875000
	2	1800000
	3	2100000
	4	2400000
	5	4200000
OTDI	1	1500000
	2	3200000
	3	3500000
	4	3750000
	5	6000000
A10	1	63300
	3	14700
W71	1	1516600
	2	3113200
	3	3267800
	4	3320000
	5	5010000

OAFW	1	11500
	2	25000
	3	30000
	4	30000
	5	45000
X87	1	6025
	2	12050
	3	12050
	4	12050
	5	18075
GGG	1	319500
	2	643000
	3	635000
	4	641000
	5	960000
F03	1	232000
	2	318000
	3	267000
	4	256000
	5	400500

The time intervals for the above constraints are:

Interval 1 - 5 years (1986 - 1990)
Interval 2 - 10 years (1991 - 2000)
Interval 3 - 10 years (2001 - 2010)
Interval 4 - 10 years (2011 - 2020)
Interval 5 - 15 years (2021 - 2035)

The constraints applied are as follows:

OTDE - Total Developed Recreation Aggregate
OTD1 - Total Dispersed Recreation Aggregate
A10 - Non Motorized Dispersed Trail Construction/Reconstruction
W71 - All Fuelwood Produced Aggregate
X87 - Maintained Water Quality - State Standards
GGG - Minerals Management Activity Aggregate
F03 - Soil and Water Improvements

f. Benchmark 6 - Maximize Wildlife (Big Game)

Objective: This benchmark displays the maximum big game WFUDs that the Humboldt can provide while maximizing present net value.

Objective Function: The objective functions of this run was to maximize big game hunting WFUDs "rolled over" to maximize PNV for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, the S.O. Dummy prescription used was Current Budget. The wilderness prescription was prevented from coming into solution because big game hunting WFUDs are included in wilderness hunting

WFUDs and are impossible to separate out (i.e. each roadless area has a different ratio of how much big game hunting WFUDs go into wilderness hunting WFUDs). It was also determined that big game hunting WFUDs under the Wilderness prescription were always less than under some other prescription so the prescription could be eliminated for this benchmark.

Assumptions: The common assumptions that all goods and services produced are marketable and the T&E species habitat will not be impacted are applicable. It is further assumed that budget levels would fluctuate.

G. Benchmark 7 - Minimum Wilderness

Objective: To display the impacts on output levels, costs and benefits if no analysis areas were allowed to go to a wilderness prescription.

Objective Function: The objective function of this run was to maximize PNV for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, the S.O. Dummy prescription used was Current Budget.

Assumptions: The common assumptions that all goods are marketable and that T&E species habitat would not be impacted are applicable. It is also assumed that budget levels would fluctuate.

Note: This benchmark (# 7) and benchmark # 3 (Maximum PNV using Market Values) are identical.

h. Benchmark 8 - Maximum Wilderness

Objective: To display the impacts on output levels, costs and benefits of assigning all suitable roadless areas to a wilderness prescription while maximizing present net value in the other areas.

Objective Function: The objective function used was to maximize PNV for 10 periods (50 years).

Constraints: In addition to the common constraint for the Jarbidge Wilderness Area, the S.O. Dummy prescription used was Current Budget. All roadless areas were "locked in" to the Wilderness prescription while all prescriptions were allowed to come into solution in the other analysis areas.

Assumptions: The common assumptions that all goods are marketable and that T&E species habitat would not be impacted are applicable. It is also assumed that budget levels would fluctuate.

D. CONSTRAINT ANALYSIS BY BENCHMARK

This discussion summarizes the impact of applying the various "sets" of constraints used for each benchmark in terms of changes in PNV. Tables displaying the outputs results of each benchmark run are included in F below. These tables will provide the reviewer an easy comparison of the Benchmark objectives and the constraints applied to reach that objective.

The PNV figure shown for each benchmark is in 1978 dollars discounted at 4% and 7.125% rates over the 50 year planning period.

1. Minimum Level Benchmark - the net PNV reached for this custodial level objective is 177.8 MM dollars at 4% and 119.5 MM dollars at 7.125%.

2. Current Management with Maintained Outputs Benchmark - the net PNV at 4% equals 228.4 MM dollars and net PNV at 7.125% equals 151.2 MM dollars.

3. Maximum PNV using Market Prices Benchmark - the net PNV at 4% equals 220.8 MM dollars and net PNV at 7.125% equals 145.9 MM dollars.

4. Maximum PNV using Assigned Prices Benchmark - the net PNV at 4% equals 243.6 MM dollars and net PNV at 7.125% equals 160.0 MM dollars.

5. Maximum Range Benchmark - the net PNV at 4% equals 206.6 MM dollars and net PNV at 7.125% equals 134.8 MM dollars.

6. Maximum Wildlife Benchmark - the net PNV at 4% equals 220.3 MM dollars and net PNV at 7.125% equals 144.7 MM dollars.

7. Minimum Wilderness Benchmark - the net PNV at 4% equals 220.8 MM dollars and net PNV at 7.125% equals 145.9 MM dollars.

8. Maximum Wilderness Benchmark - the net PNV at 4% equals 242.6 MM dollars and net PNV at 7.125% equals 159.4 MM dollars.

E. COMPARISON OF PNV MARKET AND PNV ASSIGNED BENCHMARKS

The tables in F below display the output comparisons between the two PNV benchmarks.

F. BENCHMARK RESULTS

TABLE B-2 DEVELOPED RECREATION BY BENCHMARK LEVEL (MRVDs)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	194.0	194.0	191.8	188.6	186.9	189.7
PNV Market	203.1	201.2	202.0	198.8	197.1	199.9
PNV Assigned	204.1	203.7	205.0	202.3	201.1	204.9
Max Range	229.9	241.9	253.8	264.1	268.9	280.0
Max Wildlife	204.2	203.7	205.0	202.3	201.1	204.9
Min Wilderness	203.1	201.2	202.0	198.8	197.1	199.9
Max Wilderness	204.1	203.7	205.0	202.3	201.1	204.9

TABLE B-3
WILDERNESS DISPERSED RECREATION BY BENCHMARK LEVEL (MRVDs)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	9.0	10.0	10.8	11.2	11.6	12.0
Current Mgmt	68.2	77.2	78.8	80.5	82.0	83.5
PNV Market	9.0	10.0	10.8	11.2	11.6	12.0
PNV Assigned	194.5	179.0	183.1	192.0	201.3	212.8
Max Range	18.7	25.8	26.0	26.1	26.3	26.4
Max Wildlife	13.3	20.0	20.0	20.0	20.0	20.0
Min Wilderness	9.0	10.0	10.8	11.2	11.6	12.0
Max Wilderness	202.8	233.0	239.0	254.1	263.2	273.3

TABLE B-4
OTHER DISPERSED RECREATION BY BENCHMARK LEVEL (MRVDs)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	225.9	237.7	245.2	261.1	273.6	287.0
Current Mgmt	181.9	192.4	198.5	210.3	220.6	232.4
PNV Market	226.4	238.4	245.9	261.9	274.3	287.6
PNV Assigned	89.4	93.7	95.7	99.7	104.0	109.5
Max Range	250.6	279.5	288.7	311.8	326.0	342.1
Max Wildlife	241.4	260.3	266.5	280.0	291.1	304.6
Min Wilderness	226.4	238.4	245.9	261.9	274.3	287.6
Max Wilderness	82.1	86.1	87.9	91.6	95.5	100.5

TABLE B-5
WILDERNESS MANAGEMENT BY BENCHMARK LEVEL (M ACRES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	64.7	64.7	64.7	64.7	64.7	64.7
Current Mgmt	483.4	483.4	483.4	483.4	483.4	483.4
PNV Market	64.7	64.7	64.7	64.7	64.7	64.7
PNV Assigned	1711.9	1711.9	1711.9	1711.9	1711.9	1711.9
Max Range	235.3	235.3	235.3	235.3	235.3	235.3
Max Wildlife	64.7	64.7	64.7	64.7	64.7	64.7
Min Wilderness	64.7	64.7	64.7	64.7	64.7	64.7
Max Wilderness	1757.2	1757.2	1757.2	1757.2	1757.2	1757.2

TABLE B-6
WILDLIFE STRUCTURAL HABITAT IMPROVEMENT BY BENCHMARK LEVEL (STRUCTURES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	3	3	3	3	3	3
PNV Market	4	4	4	4	4	4
PNV Assigned	4	3	3	3	3	3
Max Range	13	7	9	7	7	7
Max Wildlife	17	13	13	12	11	11
Min Wilderness	4	4	4	4	4	4
Max Wilderness	3	3	3	2	3	2

TABLE B-7
WILDLIFE NON STRUCTURAL HABITAT IMPROVEMENT BY BENCHMARK LEVEL (ACRES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	118	88	92	97	94	108
PNV Market	181	80	80	72	73	76
PNV Assigned	251	133	138	149	118	146
Max Range	277	138	77	122	113	97
Max Wildlife	436	338	338	277	226	313
Min Wilderness	181	80	80	72	73	76
Max Wilderness	259	132	138	150	119	149

TABLE B-8
WILDLIFE AND FISH USER DAYS BY BENCHMARK LEVEL (M WFUDs)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PRERIOD 5	PERIOD 6
Min Level	146.6	146.2	144.8	144.3	142.9	142.2
Current Mgmt	149.5	149.7	149.8	150.1	150.1	150.4
PNV Market	149.5	149.4	149.4	149.4	149.7	149.3
PNV Assigned	149.5	150.2	151.1	152.2	153.1	153.6
Max Range	149.6	150.0	150.8	151.8	152.7	153.5
Max Wildlife	149.6	150.8	152.3	154.2	156.0	157.5
Min Wilderness	149.5	149.4	149.4	149.4	149.7	149.3
Max Wilderness	149.5	150.2	151.1	152.2	153.2	153.9

TABLE B-9
DEER NUMBERS BY BENCHMARK LEVEL (M ANIMALS)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	53.0	53.5	51.2	50.5	49.2	48.7
Current Mgmt	53.0	53.1	53.2	53.2	53.0	52.8
PNV Market	53.0	52.8	52.8	52.8	53.0	52.6
PNV Assigned	53.0	53.5	54.3	55.1	55.7	55.8
Max Range	53.0	53.4	54.2	55.0	55.7	55.8
Max Wildlife	53.0	53.9	55.2	56.6	58.0	58.8
Min Wilderness	53.0	52.8	52.8	52.8	53.0	52.6
Max Wilderness	53.0	53.5	54.3	55.1	55.7	55.8

TABLE B-10
PERMITTED AUMs BY BENCHMARK LEVEL (M AUMs)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	299.3	299.3	294.2	296.9	301.6	303.4
PNV Market	302.9	300.4	302.5	306.5	311.7	311.8
PNV Assigned	301.9	293.8	295.1	297.9	300.4	302.5
Max Range	304.1	309.2	315.7	326.8	332.6	334.0
Max Wildlife	303.0	303.7	307.1	313.9	321.4	324.0
Min Wilderness	302.9	300.4	302.5	306.5	311.7	311.8
Max Wilderness	301.9	293.2	294.2	296.3	298.1	299.5

TABLE B-11
ALL FUELWOOD BY BENCHMARK LEVEL (M CORDS)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0.6	0.6	0.6	0.6	0.6	0.6
Current Mgmt	4.4	4.5	4.5	4.5	4.5	4.5
PNV Market	5.2	5.4	5.4	5.5	5.5	5.6
PNV Assigned	2.4	2.4	2.4	2.5	2.5	2.5
Max Range	6.6	6.8	6.8	6.9	6.9	7.0
Max Wildlife	5.4	5.7	5.7	5.7	5.8	5.9
Min Wilderness	5.2	5.4	5.4	5.5	5.5	5.6
Max Wilderness	2.3	2.4	2.4	2.4	2.4	2.4

TABLE B-12
CHRISTMAS TREE BY BENCHMARK LEVEL (M TREES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	1.6	1.8	1.8	1.8	2.0	2.0
Current Mgmt	3.0	4.0	2.8	3.4	3.6	3.6
PNV Market	3.5	4.3	3.4	3.9	4.1	4.1
PNV Assigned	2.1	2.2	2.1	2.2	2.3	2.4
Max Range	4.5	5.4	4.4	5.0	5.2	5.2
Max Wildlife	3.6	3.9	3.2	3.7	4.0	4.0
Min Wilderness	3.5	4.3	3.4	3.9	4.1	4.1
Max Wilderness	1.7	1.7	1.6	1.7	1.9	1.9

TABLE B-13
PINENUTS BY BENCHMARK LEVEL (M LBS)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	4.5	4.5	4.5	4.5	4.5	4.5
Current Mgmt	14.7	9.7	10.7	19.6	10.6	10.6
PNV Market	15.1	10.2	10.2	10.7	10.7	10.7
PNV Assigned	12.2	8.4	8.4	8.8	8.8	8.8
Max Range	19.5	12.1	12.3	12.6	12.6	12.6
Max Wildlife	15.3	11.4	10.4	11.3	11.2	11.5
Min Wilderness	15.1	10.2	10.2	10.7	10.7	10.7
Max Wilderness	12.2	8.4	8.4	8.8	8.8	8.8

TABLE B-14
TIMBER STAND IMPROVEMENT BY BENCHMARK LEVEL (ACRES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	24	53	48	45	48	49
PNV Market	51	67	63	59	63	65
PNV Assigned	13	19	19	19	20	20
Max Range	96	114	109	116	120	121
Max Wildlife	64	69	74	80	84	84
Min Wilderness	51	67	63	59	63	65
Max Wilderness	15	19	19	19	20	20

TABLE B-15
MINIMUM WATER QUALITY GOALS BY BENCHMARK LEVEL
(M ACRE/FEET)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	1304	1304	1304	1304	1304	1304
Current Mgmt	1318	1318	1318	1318	1318	1318
PNV Market	1348	1348	1348	1348	1348	1348
PNV Assigned	1355	1355	1355	1355	1355	1355
Max Range	1358	1358	1358	1358	1358	1358
Max Wildlife	1348	1348	1348	1348	1348	1348
Min Wilderness	1348	1348	1348	1348	1348	1348
Max Wilderness	1355	1355	1355	1355	1355	1355

TABLE B-16
SEDIMENT REDUCTION BY BENCHMARK LEVEL (M TONS)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	8	10	12	24	14	15
Current Mgmt	19	28	35	41	44	47
PNV Market	9	11	13	15	17	18
PNV Assigned	18	26	33	39	42	45
Max Range	35	45	53	59	65	68
Max Wildlife	8	10	12	14	15	16
Min Wilderness	9	11	13	15	17	18
Max Wilderness	18	26	33	39	42	45

TABLE B-17
SOIL IMPROVEMENT BY BENCHMARK LEVEL (ACRES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	11	9	9	8	8	8
PNV Market	8	7	7	7	7	7
PNV Assigned	19	16	16	15	13	13
Max Range	52	32	31	27	25	27
Max Wildlife	28	21	20	17	17	17
Min Wilderness	8	7	7	7	7	7
Max Wilderness	19	16	16	15	15	15

TABLE B-18
MINERAL LEASES & PERMITS BY BENCHMARK LEVEL
(OPERATING PLANS)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	202	190	190	188	186	186
Current Mgmt	226	241	235	235	235	234
PNV Market	218	213	213	207	207	207
PNV Assigned	226	237	235	231	229	229
Max Range	294	298	298	302	299	295
Max Wildlfie	255	269	267	251	246	246
Min Wilderness	218	213	213	207	207	207
Max Wilderness	225	236	234	226	229	229

TABLE B-19
TRAIL CONSTRUCTION/RECONSTRUCTION BY BENCHMARK LEVEL (MILES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	1.2	0.1	0	0	0	0
PNV Market	0	0	0	0	0	0
PNV Assigned	1.2	0.1	0	0	0	0
Max Range	1.6	0	0	0.3	0	0
Max Wildlife	0	0	0	0	0	0
Min Wilderness	0	0	0	0	0	0
Max Wilderness	1.2	0.1	0	0	0	0

TABLE B-20
ARTERIAL ROAD CONSTRUCTION/RECONSTRUCTION BY BENCHMARK LEVEL (MILES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	0	2.0	2.0	2.0	2.0	2.0
PNV Market	2.0	2.0	2.4	2.5	2.5	2.5
PNV Assigned	0	2.0	2.0	2.0	2.0	2.0
Max Range	3.1	4.1	4.5	4.6	4.6	2.7
Max Wildlife	2.0	2.0	2.6	2.5	2.7	2.5
Min Wilderness	2.0	2.0	2.4	2.5	2.5	2.5
Max Wilderness	0	2.0	2.0	2.0	2.0	2.0

TABLE B-21
COLLECTOR ROAD CONSTRUCTION/RECONSTRUCTION BY BENCHMARK LEVEL (MILES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	0	3.0	3.0	3.0	3.0	3.0
PNV Market	0.6	3.0	4.0	4.0	4.0	4.0
PNV Assigned	0	3.0	3.0	3.0	3.0	3.0
Max Range	0.6	3.0	4.0	4.0	4.0	4.0
Max Wildlife	0.6	3.0	4.0	4.0	4.0	4.0
Min Wilderness	0.6	3.0	4.0	4.0	4.0	4.0
Max Wilderness	0	3.0	3.0	3.0	3.0	3.0

TABLE B-22
LOCAL ROAD CONSTRUCTION/RECONSTRUCTION BY BENCHMARK LEVEL (MILES)

LEVEL	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6
Min Level	0	0	0	0	0	0
Current Mgmt	0.4	0.2	0.2	0.2	0.2	0.2
PNV Market	2.2	1.2	1.2	1.2	2.7	1.2
PNV Assigned	0.4	0.2	0.2	0.2	0.2	0.2
Max Range	21.0	6.7	6.7	7.1	8.6	6.7
Max Wildlife	2.4	1.5	1.5	1.5	3.0	1.5
Min Wilderness	2.2	1.2	1.2	1.2	2.7	1.2
Max Wilderness	0.4	0.2	0.2	0.2	0.2	0.2

TABLE B-23
PRESCRIPTION ASSIGNMENTS BY BENCHMARK (M ACRES)

PRESCRIPTION	MIN LEVEL	CURRENT MGMT	PNV MARKET	PNV ASSGN	MAX RANGE	MAX WILDLIFE	MIN WILDERNESS	MAX WILDERNESS
All Low	2,086.2		1,022.1	107.0	272.1	213.8	1,022.1	
No Action Curent Budget	441.7	1,683.9	752.2	219.2		494.0	752.0	
All Moderate		425.3	226.1	214.7	76.0	190.4	226.1	
All High Except Range					1,190.8	184.6		57.1
All High Except Wildlife								
A								
B				65.1		65.1		
C			257.6	186.6		516.9	257.6	
D								616.9
E								
F						498.5		
G								23.1
H					582.0	119.5		
I				88.1	236.4	245.1		88.1
Wilderness		418.7		1,647.2	170.6			1,742.7

VII. FORMULATION OF ALTERNATIVES

A. INTRODUCTION

A Forest Plan alternative can be defined as the mix of management activities and practices (prescriptions) needed to achieve a given set of management goals and objectives. It is specific as to amounts, time scheduling, and location within the limits of noncontiguous analysis areas.

As defined in 36 CFR 219.12 f, alternatives:

- Shall be within the land capability for the Forest to produce.
- Shall be formulated to facilitate the analysis of trade-offs in resource use, opportunity costs, and environmental effects between alternatives.
- Shall be formulated to facilitate the evaluation of the effects on benefits, costs and present net value.
- Shall provide a variety of responses to issues and concerns.
- Shall represent the most cost efficient combination of management prescriptions to meet the specific alternative's objectives.
- Shall state the condition, uses, goods and services produced, timing and flow of outputs, and associated costs and benefits.
- Shall state the alternative objective and the standards and guidelines proposed.
- At least one alternative shall reflect the current level of goods and services produced by the unit as projected over time. This alternative shall be considered the "No Action" alternative pursuant to NEPA procedures.

The Humboldt National Forest has supplemented the above direction by the addition of several alternative development criteria. These are:

To be viable, an alternative:

- Should meet budget limitations specified in the Intermountain Regions Land Management Planning checklist dated 2/13/84, unless it is a departure.
- Must not violate water quality standards.

B. CONSTRAINTS

The common constraint for the Jarbidge Wilderness Area that was used in the benchmark development was carried over into all alternatives.

Other constraints used for single alternatives are listed under the discussion for that alternative.

C. ALTERNATIVES

A. SIGNIFICANT WILDERNESS - Commodity Emphasis, Alternative A

OBJECTIVE: To emphasize wilderness management on a substantial amount of the Forest's roadless areas while emphasizing commodity related resources produced within areas not recommended for wilderness.

Objective Function: The objective function used was Maximize PNV - Market Values for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 2.4 MM dollars was applied for the first decade. The following analysis areas were "locked in" to the Wilderness prescription: A, B, 226, 227, 228, 229, 230, 351, 352, 355, 356, 357, 358, 359, 360, 361, 62A, 62B, 364, 65A, 65B, 66A, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 381, 384, 391, 838 and 839. The FORPLAN run was given the choice of all prescriptions except the Wilderness prescription in all other analysis areas. The SO Dummy was "locked in" to the Current Budget prescription.

Results: The original FORPLAN run was infeasible due to the budget constraint. This alternative was then run again and the average budget for the first decade was 3.06 MM dollars.

B. SIGNIFICANT WILDERNESS - Similar Emphasis - Alternative B

Objective: To emphasize wilderness management on a substantial amount of the Forest's roadless areas with similar emphasis placed on the production of resources on the areas not recommended for wilderness.

Objective Function: The objective function used was Maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 2.4 MM dollars was applied over the first decade. The following analysis areas were "locked in" to the wilderness prescription: A, B, 226, 227, 228, 230, 351, 352, 355, 358, 359, 360, 361, 66A, 66B, 367, 371, 372, 374, 375, 376, 377, 379, 391, and 839. The FORPLAN run was given the choice of all prescriptions except the wilderness prescription in all other analysis areas. The S.O. Dummy was "locked in" to the current budget prescription.

Results: The original FORPLAN run was infeasible due to the budget constraint. This alternative was then run again and the average budget for the first decade was 2.81 MM dollars.

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C. PRESENT NET VALUE - Alternative C

Objective: To emphasize products that produce the highest net return of a combination of commodity and noncommodity values.

Objective Function: The objective function used was Maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 2.4 MM dollars was applied over the first decade. The following analysis areas were "locked in" to the wilderness prescription: 226, 227, 228, 229, 352, 355, 359, 360, 367, 371, 372, 376, 391 and 839. The FORPLAN run was given the choice of all prescriptions except the wilderness prescription in all other analysis areas. The S.O. Dummy was "locked in" to the Current Budget prescription.

Results: The original FORPLAN run was infeasible due to the budget constraint. This alternative was then run again and the average budget for the first decade was 2.82 MM dollars.

D. CURRENT BUDGET - Alternative D

Objective: To emphasize a mix of commodity and noncommodity outputs that could be produced with a constrained budget. Management is directed towards maintaining the highest level of outputs as possible under a declining budget.

Objective Function: The objective function used was Maximimze PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 2.2 MM dollars for all years was applied. The following analysis areas were "locked in" to the wilderness prescription: 227, 352, 359, 367, 372 and 391. Only all low and no-action, current budget prescriptions were allowed to come into solution in the ramaining analysis areas. The S.O. Dummy was "locked in" to a reduced current budget level prescription.

Results: Analysis of this alternative showed that the budget constraint could not be met in all years with any combination of prescriptions we had developed. Rather than spend the time required to develop a new prescription for 62 analysis areas, the Humboldt decided to reduce the S.O. Dummy (Primarily GA costs) as necessary to meet the budget constraints.

E. CONSTRAINED BUDGET - Alternative E

Objective: To emphasize the production of outputs within a reduced and constrained budget.

Objective Function: The objective function used was Maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 1.6 MM dollars was applied for all years in the planning period. Only the all low, wilderness, and no action, current budget prescriptions were allowed to come into solution in all analysis areas. The S.O. Dummy was hand modified to reduce the S.O. Dummy Current Budget prescription by the following amounts: specialist support salary reduced 14 percent, GA salary reduced 13 percent, and miscellaneous dollars reduced by 12 percent from the current budget prescription. The developed recreation function was removed from this alternative (activity costs and outputs), all fuelwood activities and outputs except for free use were removed and permitted use for livestock grazing was held constant at 250,000 AUMs per year. No new roads will be built under this constrained budget alternative.

F. HIGH PRODUCTIVITY (1985 RPA) - Alternative F

Objective: To meet or exceed assigned targets and or activites for the 1985 RPA program.

Objective Function: The objective function used was maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. The FORPLAN model was given free choice between all prescriptions for all analysis areas. The S.O. Dummy was "locked in" to the Current Program prescription. The following additional constraints were applied.

CONSTRAINT	TIME INTERVAL	AMOUNT
OTDE	1	875,000
	2	1,800,000
	3	2,100,000
	4	2,400,000
	5	4,200,000
OTDI	1	1,500,000
	2	3,200,000
	3	3,500,000
	4	3,750,000
	5	6,000,000
A10	1	63,300
	3	14,700

W71	1	1,516,600
	2	3,113,200
	3	3,267,800
	4	3,320,000
	5	5,010,000
OAFW	1	11,500
	2	25,000
	3	30,000
	4	30,000
	5	45,000
X87	1	6,025
	2	12,050
	3	12,050
	4	12,050
	5	18,075
GGG	1	319,500
	2	643,000
	3	635,000
	4	641,000
	5	960,000
F03	1	232,000
	2	318,000
	3	267,000
	4	256,000
	5	400,500

The time intervals for the above constraints are:

Interval 1 - 5 years (1986 - 1990)
Interval 2 - 10 years (1991 - 2000)
Interval 3 - 10 years (2001 - 2010)
Interval 4 - 10 years (2011 - 2020)
Interval 5 - 15 years (2021 - 2035)

The constraints applied are as follows:

OTDE - Total developed recreation aggregate
OTDI - Total dispersed recreation aggregate
A10 - Non motorized dispersed trail construction/reconstruction
W71 - All fuelwood produced aggregate
X87 - Maintained water quality - State standards
GGG - Minerals management activity aggregate
F03 - Soil and water improvements

The constraints were developed to measure Forest outputs that had RPA targets. Most of the constraints measure the outputs directly--OTDE, OTDI, W71, OAFW, X87. The Humboldt does not have an output in the FORPLAN model for miles of trail construction/reconstruction so the constraint was applied to the activity cost for trail construction/reconstruction. We also do not have an output for number of mineral operating plans so the constraint was applied to the minerals activity aggregate. We also do not have an output for soil and water resource improvement acres so the constraint was applied to the soil and water improvement activity costs.

One of the prescriptions, all high except wildlife, was developed primarily to try and meet RPA targets. A preliminary run was made with all analysis areas "locked in" to this prescription to determine the maximum level obtainable in these targets with our existing prescriptions. The results of this preliminary run were used to define the constraints used in this alternative. The Humboldt is unable to meet RPA targets in some areas so the constraint used was the maximum we can obtain. A FORPLAN run with RPA targets as constraints would result in an automatic infeasible solution.

Results: The results of the run show that the Humboldt can meet some of the RPA targets and is unable to meet others.

Developed recreation use - targets are met in all time frames.

Dispersed recreation use - targets are met in all time frames.

Trail construction/reconstruction - targets are not met, however, the maximum number of miles are provided.

Livestock grazing use - targets are not met until the year 2000 but are met from this time on.

Timber program sales offered - targets are met in all time periods (fuelwood).

Water meeting water quality goals - targets are met in all time periods.

Mineral leases and permits - targets are not met.

Soil and water resource improvement - targets are not met.

G. 1980 RPA ALTERNATIVE - Alternative G

Objective: To meet or exceed assigned targets and/or activities for the 1980 RPA program.

The only difference in targets between this alternative and Alternative F is in livestock grazing. The alternative is the same as Alternative F and not rerun. The only difference in results is that we do not meet the 1980 target in livestock grazing until the year 2011 and then exceed or meet the target. All other targets are the same as discussed in Alternative F.

H. CURRENT MANAGEMENT WITH MAINTAINED OUTPUTS - Alternative H

Objective: Continue current direction of the Forest while maintaining outputs over the first decade.

Objective Function: The objective function used was maximize PNV for ten period (50 years).

Assumptions: There would be no major changes in current direction and policy. Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. The following analysis areas were "locked in" to the wilderness prescription: 352, 359, 360, 367, 371, and 372. All other analysis areas were "locked in" to the no action - current budget prescription. The S.O. Dummy was "locked in" to the current budget prescription.

Results: After the initial FORPLAN run was analyzed, it was determined that developed recreation outputs were declining during the first ten years. The run was repeated with the objective of maintaining those outputs for the first ten years. Livestock permitted use (AUMs) also declines during the first ten years, however this is necessary in all prescriptions to bring permitted use into line with range capacity.

I. MARKET OPPORTUNITIES - Alternative I

Objective: To optimize wood products, livestock grazing, developed recreation and special uses.

Objective Function: The objective function used was maximize PNV - market values for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Areas was applied. A budget constraint of 2.6 MM dollars for the first decade was applied. The FORPLAN model was given the choice of all prescriptions except the wilderness prescription. The S.O. Dummy was "locked in" to the current program prescription.

J. SIGNIFICANT WILDERNESS - Alternative J

Objective: To optimize the wilderness values on the Humboldt National Forest.

Objective Function: The objective function used was maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will no be impaired.

Constraints: The common constraint for the Jarbidge Wilderness Area was applied. A budget constraint of 2.6 MM dollars for the first decade was applied. The following analysis areas were "locked in" to the wilderness prescription: A, B, 226, 227, 228, 229, 230, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 62A, 62B, 364, 65A, 65B, 66A, 66B, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 384, 387, 388, 389, 390, 391, 836, 838, and 839. The FORPLAN model was given the choice of all prescriptions except the wilderness prescription in the other analysis areas. The S.O. Dummy was "locked in" to the current budget prescription.

K. PREFERRED ALTERNATIVE - Alternative K

Objective: To modify Alternative K - Preferred Alternative that was described in the Draft Environmental Impact Statement and Proposed Forest Plan to respond to public comments received. This new alternative provides for more dollars for minerals management and responds to public comments regarding recreation and wildlife management.

Objective Function: The objective function used was maximize PNV for ten periods (50 years).

Assumptions: Markets are available for all goods and services produced. Threatened and endangered species habitat will not be impaired.

Constraints: The common constraint for the Jarbridge Wilderness Area was applied. The following analysis areas were "locked in" to the Wilderness prescription: 3B, 226, 227, 352, 359, 367 and 371. The following analysis areas were "locked in" to prescription B: 2A and 228. The following analysis areas were "locked in" to prescription F: 10, 45, 364, 369, 376, 377, 388, 62A, and 62B. The following analysis areas were "locked in" to the All Moderate prescription: 27, 3A, 42, 43, 44, 46, 59, 229, 353, 354, 356, 358, 373 and 374. The following analysis areas were "locked in" to the Current Budget prescription: A, B, 41, 230, 351, 355, 357, 360, 361, 368, 370, 372, 375, 378, 379, 380, 381, 382, 384, 387, 389, 390, 391, 65A, 65B, 66A, 66B, 836, 838 and 839. The S. O. Dummy was "locked in" to the Current Budget prescription.

D. Alternatives Considered but Rejected

In 1982 an "Array of Alternatives" was compiled for Forest and Regional Office reviews. This array included five optional alternatives which were eliminated from further analysis because they were found to have similar costs, benefits and output levels as other alternatives in the array.

Two additional alternatives were considered which were dropped from further analysis. Alternative B, Significant Wilderness--Similar Emphasis, was not included as an "alternative considered in detail" because it was found to have costs, benefits and output levels similar to Alternative A, Significant Wilderness - Commodity Emphasis. Alternative G, 1980 RPA, was not included as an "alternative considered in detail" because it was found to be essentially the same alternative as Alternative F, High Productivity--1985 RPA.

E. Alternative Development Process

The alternative development process used by the Humboldt was relatively simple in concept.

1. Benchmarks were used to establish PNV and resource output level parameters. No attempts were made to exceed the limits established by benchmark runs for any output.

2. Required alternatives were formulated based on Intermountain Region and Washington Office direction.

3. Output levels, costs, and benefits from the various required and optional alternative runs were compared to determine if a "range" of outputs was included and how responsive these alternatives were to issues and concerns.

VII. COMPARISON OF EFFECTS FOR BENCHMARKS AND ALTERNATIVES

A. Introduction

The comparison of benchmarks and alternatives is intended to openly display the levels of outputs, costs, benefits, and environmental impacts. This open display will provide the general public and decision-makers the information needed to recommend and finally select a proposed action.

B. Constraint Evaluation

As discussed in Appendix B, VI and VII, few common constraints were used in the Humboldt's analysis of benchmarks and alternatives. These were designed to meet legal and/or 36 CFR 219 requirements and therefore were not considered optional. No "sensitivity" analysis was done for the common constraints.

The constraints used to reach individual benchmark and alternative objectives were not subjected to formal sensitivity analysis due to cost, time, and available expertise. However, the effects of individual constraint application can be readily seen by comparing the output levels and costs between alternatives.

C. Trade-offs Between Alternatives

The tables below provide an easy means of comparing the quantifiable "trade-offs" between the various benchmarks and alternatives.

There are also "trade-offs" between alternatives in responsiveness to issues and concerns. Every alternative cannot be fully responsive to every issue and concern. In fact, most issues cannot be resolved to all publics satisfaction since they are issues created by conflicting opinions and needs.

More detailed discussion and comparison is available in DEIS Chapter II.

TABLE B-24 DEVELOPED RECREATION (MRVDs)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	194.0	194.0	191.8	188.6	186.9	189.7
Max PNV-Market Benchmark	203.1	201.2	202.0	198.8	197.1	199.9
Max PNV-Assigned Benchmark	204.1	203.7	205.0	202.3	201.1	204.9
Max Range Benchmark	229.9	241.9	253.8	264.1	268.9	280.0
Max Wildlife Benchmark	204.2	203.7	205.0	202.3	201.1	204.9
Min Wilderness Benchmark	203.1	201.2	202.0	198.8	197.1	199.9
Max Wilderness Benchmark	204.1	203.7	205.0	202.3	201.1	204.9
Significant Wilderness-Commodity Emp.	203.1	201.2	202.0	198.8	197.1	199.9
Max PNV	204.1	203.7	205.0	202.3	201.1	204.9
Current Budget	182.8	165.7	159.7	153.2	149.2	146.9
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	229.9	241.9	253.8	264.1	268.9	280.0
Current Management	194.0	194.0	191.8	188.6	186.9	189.7
Market Opportunities	203.1	201.2	202.0	198.8	197.1	199.9
Significant Wilderness	183.8	167.8	161.9	155.5	151.8	150.0
Preferred Alternative	213.3	221.9	227.7	231.0	235.3	243.9

TABLE B-25 DISPERSED RECREATION WILDERNESS (MRVDs)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	9.1	10.0	10.8	11.2	11.6	12.0
Current Management Benchmark	68.2	77.2	78.8	80.5	82.0	83.5
Max PNV-Market Benchmark	9.0	10.0	10.8	11.2	11.6	12.0
Max PNV-Assigned Benchmark	194.5	224.2	230.0	244.8	253.5	262.9
Max Range Benchmark	18.7	25.8	26.0	26.1	26.3	26.4
Max Wildlife Benchmark	13.3	20.0	20.0	20.0	20.0	20.0
Min Wilderness Benchmark	9.0	10.0	10.8	11.2	11.6	12.0
Max Wilderness Benchmark	202.8	233.0	239.0	254.1	263.2	273.3
Significant Wilderness-Commodity Emp.	171.6	191.3	195.6	205.2	211.3	218.1
Max PNV	112.3	130.3	131.9	136.2	138.9	142.0
Current Budget	66.6	75.6	76.9	78.6	79.9	81.4
Constrained Budget	9.1	9.1	9.1	9.1	9.1	9.1
High Productivity (1985 RPA)	18.7	25.8	26.0	26.1	26.3	26.4
Current Management	68.2	77.2	78.8	80.5	82.0	83.5
Market Opportunities	9.0	10.0	10.8	11.2	11.6	12.0
Significant Wilderness	199.7	225.7	232.4	247.7	257.1	267.5
Preferred Alternative	50.8	58.9	59.3	59.9	60.6	61.5

TABLE B-26 DISPERSED RECREATION OTHER (MRVDs)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	225.9	237.7	245.2	261.1	273.6	287.0
Current Management Benchmark	181.9	192.4	198.5	210.3	220.6	232.4
Max PNV-Market Benchmark	226.4	238.4	245.9	261.9	274.3	287.6
Max PNV-Assigned Benchmark	89.4	93.7	95.7	99.7	104.0	109.5
Max Range Benchmark	250.6	279.3	288.7	311.8	326.0	342.1
Max Wildlife Benchmark	241.4	260.3	266.5	280.0	291.1	304.6
Min Wilderness Benchmark	226.4	238.4	245.9	261.9	274.3	287.6
Max Wilderness Benchmark	82.1	86.1	87.9	91.6	95.5	100.5
Significant Wilderness-Commodity Emp.	105.9	111.3	114.6	121.7	128.6	136.6
Max PNV	156.5	166.0	169.9	178.2	186.7	197.1
Current Budget	182.3	190.9	196.4	208.2	218.6	230.6
Constrained Budget	225.9	237.7	245.2	261.1	273.6	287.0
High Productivity (1985 RPA)	250.6	279.3	288.7	311.8	326.0	342.1
Current Management	181.9	192.4	198.5	210.3	220.6	232.4
Market Opportunities	226.4	238.4	245.9	261.8	274.3	287.6
Significant Wilderness	79.9	83.1	85.2	89.7	93.9	99.0
Preferred Alternative	221.5	237.4	244.2	257.4	268.1	279.8

TABLE B-27 WILDERNESS MANAGEMENT (M ACRES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	64.7	64.7	64.7	64.7	64.7	64.7
Current Management Benchmark	483.4	483.4	483.4	483.4	483.4	483.4
Max PNV-Market Benchmark	64.7	64.7	64.7	64.7	64.7	64.7
Max PNV-Assigned Benchmark	1711.9	1711.9	1711.9	1711.9	1711.9	1711.9
Max Range Benchmark	235.3	235.3	235.3	235.3	235.3	235.3
Max Wildlife Benchmark	64.7	64.7	64.7	64.7	64.7	64.7
Min Wilderness Benchmark	64.7	64.7	64.7	64.7	64.7	64.7
Max Wilderness Benchmark	1757.2	1757.2	1757.2	1757.2	1757.2	1757.2
Significant Wilderness-Commodity Emp.	1233.7	1233.7	1233.7	1233.7	1233.7	1233.7
Max PNV	713.8	713.8	713.8	713.8	713.8	713.8
Current Budget	330.3	330.3	330.3	330.3	330.3	330.3
Constrained Budget	64.7	64.7	64.7	64.7	64.7	64.7
High Productivity (1985 RPA)	235.3	235.3	235.3	235.3	235.3	235.3
Current Management	483.4	483.4	483.4	483.4	483.4	483.4
Market Opportunities	64.7	64.7	64.7	64.7	64.7	64.7
Significant Wilderness	1757.2	1757.2	1757.2	1757.2	1757.2	1757.2
Preferred Alternative	333.0	333.0	333.0	333.0	3330.	333.0

TABLE B-28
WILDLIFE STRUCTURAL HABITAT IMPROVEMENT
(Structures)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	3	3	3	3	3	3
Max PNV-Market Benchmark	4	4	4	4	4	4
Max PNV-Assigned Benchmark	4	3	3	3	3	3
Max Range Benchmark	13	7	9	7	7	7
Max Wildlife Benchmark	17	13	13	12	11	11
Min Wilderness Benchmark	4	4	4	4	4	4
Max Wilderness Benchmark	3	3	3	3	3	3
Significant Wilderness-Commodity Emp.	3	3	3	3	3	3
Max PNV	5	4	4	4	4	4
Current Budget	1	1	1	1	1	1
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	13	7	9	7	7	7
Current Management	3	3	3	3	3	3
Market Opportunities	4	4	4	4	4	4
Significant Wilderness	3	1	3	1	3	1
Preferred Alternative	89	114	0	0	0	0

TABLE B-29 WILDLIFE NON STRUCTURAL HABITAT IMPROVEMENT
(Acres)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	118	88	92	97	94	108
Max PNV-Market Benchmark	181	80	80	72	73	76
Max PNV-Assigned Benchmark	251	133	138	149	118	146
Max Range Benchmark	277	138	77	122	113	97
Max Wildlife Benchmark	436	338	338	277	226	313
Min Wilderness Benchmark	181	80	80	72	73	76
Max Wilderness Benchmark	259	132	138	150	119	149
Significant Wilderness-Commodity Emp.	235	113	118	136	105	133
Max PNV	221	92	102	108	94	122
Current Budget	92	61	72	72	72	80
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	277	138	77	122	113	97
Current Management	118	88	92	97	94	108
Market Opportunities	185	82	82	72	72	76
Significant Wilderness	241	113	112	138	108	134
Preferred Alternative	233	930	275	275	275	275

TABLE B-30 WILDLIFE AND FISH USE (M WFUDs)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	146.6	146.2	144.8	144.3	142.9	142.2
Current Management Benchmark	149.5	149.7	149.8	150.1	150.1	150.4
Max PNV-Market Benchmark	149.5	149.4	149.4	149.4	149.7	149.3
Max PNV-Assigned Benchmark	149.5	150.2	151.1	152.2	153.1	153.6
Max Range Benchmark	149.6	150.0	150.8	151.8	152.7	153.5
Max Wildlife Benchmark	149.6	150.8	152.3	154.2	156.0	157.5
Min Wilderness Benchmark	149.5	149.4	149.4	149.4	149.7	149.3
Max Wilderness Benchmark	149.5	150.2	151.1	152.2	153.2	153.9
Significant Wilderness-Commodity Emp.	149.6	150.0	150.1	151.2	152.1	152.5
Max PNV	149.6	150.0	150.1	151.9	152.8	153.3
Current Budget	149.6	149.4	148.4	148.1	147.1	146.7
Constrained Budget	146.6	146.2	144.8	144.3	142.9	142.2
High Productivity (1985 RPA)	149.6	150.0	150.8	151.8	152.7	153.5
Current Management	149.5	149.7	149.8	150.1	150.1	150.4
Market Opportunities	149.5	149.4	149.4	149.4	149.7	149.3
Significant Wilderness	149.5	150.1	151.0	152.0	152.9	153.4
Preferred Alternative	149.6	150.2	150.7	151.3	152.0	152.7

TABLE B-31 DEER NUMBERS (M ANIMALS)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	53.0	52.5	51.2	50.5	49.2	48.7
Current Management Benchmark	53.0	53.1	53.2	53.2	53.0	52.8
Max PNV-Market Benchmark	53.0	52.8	52.8	52.8	53.0	52.6
Max PNV-Assigned Benchmark	53.0	53.5	54.3	55.1	55.7	55.8
Max Range Benchmark	53.0	53.4	54.2	55.0	55.7	55.8
Max Wildlife Benchmark	53.0	53.9	55.2	56.6	58.0	58.8
Min Wilderness Benchmark	53.0	52.8	52.8	52.8	53.0	52.6
Max Wilderness Benchmark	53.0	53.5	54.3	55.1	55.7	55.8
Significant Wilderness-Commodity Emp.	53.0	53.3	53.9	54.4	55.0	55.1
Max PNV	53.0	53.4	54.1	54.9	55.5	55.6
Current Budget	53.0	52.7	51.6	51.3	50.2	49.8
Constrained Budget	53.0	52.5	51.2	50.5	49.2	48.7
High Productivity (1985 RPA)	53.0	53.4	54.2	55.0	55.7	56.1
Current Management	53.0	53.1	53.2	53.2	53.0	52.8
Market Opportunities	53.0	52.8	52.8	52.8	53.0	52.6
Significant Wilderness	53.0	53.5	54.2	55.6	55.7	55.7
Preferred Alternative	53.0	53.5	54.3	54.4	55.0	55.3

TABLE B-32 LIVESTOCK PERMITTED USE (M AUMs)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	299.3	293.3	294.2	296.9	301.6	303.4
Max PNV-Market Benchmark	302.9	300.4	302.5	306.5	311.7	311.8
Max PNV-Assigned Benchmark	301.9	293.8	295.1	297.9	300.4	302.5
Max Range Benchmark	304.1	309.2	315.7	326.8	332.6	334.0
Max Wildlife Benchmark	303.0	303.7	307.1	313.9	321.4	324.0
Min Wilderness Benchmark	302.9	300.4	302.5	306.5	311.7	311.8
Max Wilderness Benchmark	301.9	293.3	294.2	296.3	298.1	299.5
Significant Wilderness-Commodity Emp.	302.2	294.8	295.0	297.1	300.1	300.2
Max PNV	302.2	297.7	298.7	302.2	307.1	307.8
Current Budget	301.2	291.7	289.2	289.5	291.7	289.8
Constrained Budget	250.0	250.0	250.0	250.0	250.0	250.0
High Productivity (1985 RPA)	304.1	309.2	315.7	326.8	332.6	334.0
Current Management	299.3	293.3	294.2	296.9	301.6	303.4
Market Opportunities	302.9	300.4	302.5	306.5	311.7	311.8
Significant Wilderness	301.9	293.1	294.0	295.9	297.5	298.7
Preferred Alternative	302.7	300.3	302.5	307.6	314.2	316.6

TABLE B-33 FUELWOOD (M CORDS)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0.6	0.6	0.6	0.6	0.6	0.6
Current Management Benchmark	4.4	4.5	4.5	4.5	4.5	4.6
Max PNV-Market Benchmark	5.2	5.4	5.4	5.5	5.5	5.6
Max PNV-Assigned Benchmark	2.4	2.4	2.4	2.5	2.5	2.5
Max Range Benchmark	6.6	6.8	6.8	6.9	6.9	7.0
Max Wildlife Benchmark	5.4	5.7	5.7	5.7	5.8	5.9
Min Wilderness Benchmark	5.2	5.4	5.4	5.5	5.5	5.6
Max Wilderness Benchmark	2.3	2.4	2.4	2.4	2.4	2.4
Significant Wilderness-Commodity Emp.	2.8	2.9	2.9	2.9	2.9	3.0
Max PNV	3.8	3.9	3.9	4.0	4.0	4.0
Current Budget	4.4	4.5	4.5	4.6	4.6	4.6
Constrained Budget	0.6	0.6	0.6	0.6	0.6	0.6
High Productivity (1985 RPA)	6.6	6.8	6.8	6.9	6.9	7.0
Current Management	4.4	4.5	4.5	4.5	4.5	4.6
Market Opportunities	5.2	5.4	5.4	5.5	5.5	5.6
Significant Wilderness	2.2	2.3	2.3	2.3	2.3	2.4
Preferred Alternative	5.1	5.2	5.3	5.3	5.4	5.4

TABLE B-34 CHRISTMAS TREES (M TREES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	1.6	1.8	1.8	1.8	2.0	2.0
Current Management Benchmark	3.0	4.0	2.8	3.4	3.6	3.6
Max PNV-Market Benchmark	3.5	4.3	3.4	3.9	4.1	4.1
Max PNV-Assigned Benchmark	2.1	2.2	2.1	2.2	2.3	2.4
Max Range Benchmark	4.5	5.4	4.4	5.0	5.2	5.2
Max Wildlife Benchmark	3.6	3.9	3.2	3.7	4.0	4.0
Min Wilderness Benchmark	3.5	4.3	3.4	3.9	3.6	3.6
Max Wilderness Benchmark	1.7	1.7	1.7	1.7	1.7	1.7
Significant Wilderness-Commodity Emp.	1.8	2.1	1.7	2.0	2.1	2.1
Max PNV	2.3	2.7	2.2	2.5	2.7	2.8
Current Budget	3.1	4.1	3.1	3.6	3.8	3.8
Constrained Budget	1.6	1.8	1.8	1.8	2.0	2.0
High Productivity (1985 RPA)	4.5	5.4	4.4	5.0	5.2	5.2
Current Management	3.0	4.0	2.8	3.4	3.6	3.6
Market Opportunities	3.5	4.3	3.4	3.9	4.1	4.1
Significant Wilderness	1.5	1.7	1.5	1.7	1.7	1.8
Preferred Alternative	3.9	3.6	2.8	3.4	3.6	3.6

TABLE B-35 PINENUTS (M POUNDS)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	4.5	4.5	4.5	4.5	4.5	4.5
Current Management Benchmark	14.7	9.7	10.7	10.6	10.6	10.6
Max PNV-Market Benchmark	15.1	10.2	10.2	10.7	10.7	10.7
Max PNV-Assigned Benchmark	12.2	8.4	8.4	8.8	8.8	8.8
Max Range Benchmark	19.5	12.1	12.3	12.6	12.6	12.6
Max Wildlife Benchmark	15.3	11.4	10.4	11.3	11.3	11.5
Min Wilderness Benchmark	15.1	10.2	10.2	10.7	10.7	10.7
Max Wilderness Benchmark	12.2	8.4	8.4	8.8	8.8	8.8
Significant Wilderness-Commodity Emp.	12.3	8.6	8.6	9.0	9.0	9.0
Max PNV	12.8	9.0	9.0	9.5	9.5	9.5
Current Budget	14.0	9.1	9.2	9.7	9.7	9.7
Constrained Budget	4.5	4.5	4.5	4.5	4.5	4.5
High Productivity (1985 RPA)	19.5	12.1	12.3	12.6	12.6	12.6
Current Management	14.7	9.7	10.7	10.6	10.6	10.6
Market Opportunities	15.1	10.2	10.2	10.7	10.7	10.7
Significant Wilderness	12.1	8.0	8.0	8.4	8.4	8.4
Preferred Alternative	22.7	15.7	11.1	11.9	11.9	12.1

TABLE B-36 TIMBER STAND IMPROVEMENT (ACRES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	24	53	48	45	48	49
Max PNV-Market Benchmark	51	67	63	59	63	65
Max PNV-Assigned Benchmark	13	19	19	19	20	20
Max Range Benchmark	96	114	109	116	120	121
Max Wildlife Benchmark	64	69	74	80	84	84
Min Wilderness Benchmark	51	67	63	59	63	65
Max Wilderness Benchmark	15	19	19	19	20	20
Significant Wilderness-Commodity Emp.	19	21	21	20	21	21
Max PNV	24	45	40	40	43	43
Current Budget	29	59	53	48	51	52
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	96	114	109	116	120	121
Current Management	24	53	48	45	48	49
Market Opportunities	53	67	64	59	63	65
Significant Wilderness	11	16	16	16	17	19
Preferred Alternative	13	53	56	58	61	62

TABLE B-37 MINIMUM WATER QUALITY GOALS (M ACRE FEET)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	1304	1304	1304	1304	1304	1304
Current Management Benchmark	1318	1318	1318	1318	1318	1318
Max PNV-Market Benchmark	1348	1348	1348	1348	1348	1348
Max PNV-Assigned Benchmark	1355	1355	1355	1355	1355	1355
Max Range Benchmark	1358	1358	1358	1358	1358	1358
Max Wildlife Benchmark	1348	1348	1348	1348	1348	1348
Min Wilderness Benchmark	1348	1348	1348	1348	1348	1348
Max Wilderness Benchmark	1355	1355	1355	1355	1355	1355
Significant Wilderness-Commodity Emp.	1355	1355	1355	1355	1355	1355
Max PNV	1354	1354	1354	1354	1354	1354
Current Budget	1316	1316	1316	1316	1316	1316
Constrained Budget	1304	1304	1304	1304	1304	1304
High Productivity (1985 RPA)	1358	1358	1358	1358	1358	1358
Current Management	1318	1318	1318	1318	1318	1318
Market Opportunities	1348	1348	1348	1348	1348	1348
Significant Wilderness	1355	1355	1355	1355	1355	1355
Preferred Alternative	1311	1311	1311	1311	1311	1311

TABLE B-38 SEDIMENT REDUCTION (M TONS)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	8	10	12	24	14	15
Current Management Benchmark	19	29	35	41	44	47
Max PNV-Market Benchmark	9	11	13	15	17	18
Max PNV-Assigned Benchmark	18	26	33	39	42	45
Max Range Benchmark	35	45	53	59	65	68
Max Wildlife Benchmark	8	10	12	14	15	16
Min Wilderness Benchmark	9	11	13	15	17	18
Max Wilderness Benchmark	18	26	33	39	42	45
Significant Wilderness-Commodity Emp.	18	25	33	39	42	45
Max PNV	19	27	34	40	43	46
Current Budget	18	26	33	39	42	45
Constrained Budget	8	10	12	24	14	15
High Productivity (1985 RPA)	35	45	53	59	65	68
Current Management	19	29	35	41	44	47
Market Opportunities	9	11	13	15	17	18
Significant Wilderness	25	39	45	51	57	61
Preferred Alternative	20	29	34	39	44	47

TABLE B-39 SOIL IMPROVEMENT (ACRES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	11	9	9	8	8	8
Max PNV-Market Benchmark	8	7	7	7	7	7
Max PNV-Assigned Benchmark	19	16	16	15	13	13
Max Range Benchmark	52	32	31	27	25	27
Max Wildlife Benchmark	28	21	20	17	17	17
Min Wilderness Benchmark	8	7	7	7	7	7
Max Wilderness Benchmark	19	16	16	15	15	15
Significant Wilderness-Commodity Emp.	17	13	13	12	12	12
Max PNV	12	11	11	9	9	9
Current Budget	5	5	5	5	5	5
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	52	32	31	27	25	27
Current Management	11	9	9	8	8	8
Market Opportunities	8	7	7	7	7	7
Significant Wilderness	19	15	15	13	13	13
Preferred Alternative	19	18	17	15	15	15

TABLE B-40 MINERAL LEASES AND PERMITS (OPERATING PLANS)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	202	190	190	188	186	186
Current Management Benchmark	226	241	235	235	235	234
Max PNV-Market Benchmark	218	218	213	207	207	207
Max PNV-Assigned Benchmark	226	237	235	231	229	229
Max Range Benchmark	294	298	298	302	299	295
Max Wildlife Benchmark	255	269	267	251	246	246
Min Wilderness Benchmark	218	218	213	207	207	207
Max Wilderness Benchmark	225	236	234	226	229	229
Significant Wilderness-Commodity Emp.	218	230	230	222	223	223
Max PNV	226	235	233	225	227	227
Current Budget	210	209	209	201	201	201
Constrained Budget	202	190	190	188	186	186
High Productivity (1985 RPA)	294	298	298	302	299	295
Current Management	226	241	235	235	235	234
Market Opportunities	218	213	213	207	207	207
Significant Wilderness	222	234	233	229	227	227
Preferred Alternative	226	239	234	227	233	233

TABLE B-41 TRAIL CONSTRUCTION/RECONSTRUCTION (MILES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	1.2	0.1	0	0	0	0
Max PNV-Market Benchmark	0	0	0	0	0	0
Max PNV-Assigned Benchmark	1.2	0.1	0	0	0	0
Max Range Benchmark	1.6	0	0	0.3	0	0
Max Wildlife Benchmark	0	0	0	0	0	0
Min Wilderness Benchmark	0	0	0	0	0	0
Max Wilderness Benchmark	1.2	0.1	0	0	0	0
Significant Wilderness-Commodity Emp.	1.2	0	0	0	0	0
Max PNV	1.1	0	0	0	0	0
Current Budget	0.9	0	0	0	0	0
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	1.6	0	0	0.3	0	0
Current Management	1.2	0.1	0	0	0	0
Market Opportunities	0	0	0	0	0	0
Significant Wilderness	1.2	0	0	0	0	0
Preferred Alternative	5.0	5.0	5.0	5.0	5.0	5.0

TABLE B-42 ARTERIAL ROAD CONSTRUCTION/RECONSTRUCTION (MILES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	0	2.0	2.0	2.0	2.0	2.0
Max PNV-Market Benchmark	2.0	2.0	2.4	2.5	2.5	2.5
Max PNV-Assigned Benchmark	0	2.0	2.4	2.5	2.5	2.5
Max Range Benchmark	3.1	4.1	4.5	4.6	4.6	2.7
Max Wildlife Benchmark	2.0	2.0	2.6	2.5	2.7	2.5
Min Wilderness Benchmark	2.0	2.0	2.4	2.5	2.5	2.5
Max Wilderness Benchmark	0	2.0	2.0	2.0	2.0	2.0
Significant Wilderness-Commodity Emp.	2.0	2.0	2.4	2.5	2.5	2.5
Max PNV	0	2.0	2.0	2.0	2.0	2.0
Current Budget	0	0	2.0	2.0	2.0	2.0
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	3.1	4.1	4.5	4.6	4.6	2.7
Current Management	0	2.0	2.0	2.0	2.0	2.0
Market Opportunities	0	2.0	2.0	2.0	2.0	2.0
Significant Wilderness	0	2.0	2.0	2.0	2.0	2.0
Preferred Alternative	0	2.0	2.0	2.0	2.0	2.0

TABLE B-43 COLLECTOR ROAD CONSTRUCTION/RECONSTRUCTION

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	0	3.0	3.0	3.0	3.0	3.0
Max PNV-Market Benchmark	0.6	3.0	4.0	4.0	4.0	4.0
Max PNV-Assigned Benchmark	0	3.0	3.0	3.0	3.0	3.0
Max Range Benchmark	0.6	3.0	4.0	4.0	4.0	4.0
Max Wildlife Benchmark	0.6	3.0	4.0	4.0	4.0	4.0
Min Wilderness Benchmark	0.6	3.0	4.0	4.0	4.0	4.0
Max Wilderness Benchmark	0	3.0	3.0	3.0	3.0	3.0
Significant Wilderness-Commodity Emp.	0.6	3.0	4.0	4.0	4.0	4.0
Max PNV	0	3.0	3.0	3.0	3.0	3.0
Current Budget	0	0	3.0	3.0	3.0	3.0
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	0.6	3.0	4.0	4.0	4.0	4.0
Current Management	0	3.0	3.0	3.0	3.0	3.0
Market Opportunities	0	3.0	3.0	3.0	3.0	3.0
Significant Wilderness	0	3.0	3.0	3.0	3.0	3.0
Preferred Alternative	0	3.0	3.0	3.0	3.0	3.0

TABLE B-44 LOCAL ROAD CONSTRUCTION/RECONSTRUCTION (MILES)

Benchmark or Alternative	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Min Level Benchmark	0	0	0	0	0	0
Current Management Benchmark	0.4	0.2	0.3	0.2	0.2	0.2
Max PNV-Market Benchmark	2.2	1.2	1.2	1.2	2.7	1.2
Max PNV-Assigned Benchmark	0.4	0.2	0.2	0.2	0.2	0.2
Max Range Benchmark	21.0	6.7	6.7	7.1	8.6	6.7
Max Wildlife Benchmark	2.4	1.5	1.5	1.5	3.0	1.5
Min Wilderness Benchmark	2.2	1.2	1.2	1.2	2.7	1.2
Max Wilderness Benchmark	0.4	0.2	0.2	0.2	0.2	0.2
Significant Wilderness-Commodity Emp.	2.2	1.2	1.2	1.2	2.7	1.2
Max PNV	0.4	0.2	0.2	0.2	0.2	0.2
Current Budget	0	0	0	0	0	0
Constrained Budget	0	0	0	0	0	0
High Productivity (1985 RPA)	21.0	6.7	6.7	7.1	8.6	6.7
Current Management	0.4	0.2	0.2	0.2	0.2	0.2
Market Opportunities	0.4	0.2	0.2	0.2	0.2	0.2
Significant Wilderness	0	0	0	0	0	0
Preferred Alternative	1.2	0.6	0.5	0.5	0.5	0.5

TABLE B-45
PRESCRIPTION ASSIGNMENTS BY ALTERNATIVE
(M ACRES)

PRESCRIPTION	A	C	D	E	F	H	I	J	K
ALL LOW	446.2	285.4	1572.5	2086.2	274.1		1251.1	221.1	
NO ACTION-CURRENT BUDGET	366.3	925.3	689.8	441.7		1683.9	793.9	352.6	899.9
ALL MODERATE	282.8	329.3				425.3	230.2		540.7
ALL HIGH EXCEPT RANGE					76.0				
ALL HIGH EXCEPT WILDLIFE					1198.8				
A									
B									251.0
C	263.6	243.6					252.6	197.0	
D									
E									
F									503.3
G								64.7	
H					586.0				
I		95.2			238.4				
WILDERNESS	1169.0	649.1	265.6		154.6	418.7		1692.5	333.0

TABLE B-46
BENEFITS, COSTS, AND PNV FOR 50 YEARS IN MM DOLLARS

		4%			7.1%	
	BENEFITS	COSTS	PNV	BENEFITS	COSTS	PNV
Min Level Benchmark	198.3	20.5	177.8	132.6	13.1	119.5
Current Mgmt Benchmark	284.0	55.6	228.4	187.1	35.9	151.2
Max PNV Market Benchmark	281.9	61.1	220.8	185.6	39.7	145.9
Max PNV-Assigned Benchmark	299.7	56.1	243.6	196.5	36.5	160.0
Max Range Benchmark	292.7	86.1	206.6	191.6	56.8	134.8
Max Wildlife Benchmark	287.7	67.4	220.3	188.8	44.1	144.7
Min Wilderness Benchmark	281.9	61.1	220.8	185.6	39.7	145.9
Max Wilderness Benchmark	300.4	57.8	242.6	197.0	37.6	159.4
Significant Wilderness Commodity Emp.	295.2	63.3	231.9	193.9	41.2	152.7
Max PNV	293.1	58.0	235.1	192.5	37.7	154.8
Current Budget	282.9	49.1	233.8	186.7	31.4	155.3
Constrained Budget	254.6	35.9	218.7	168.5	23.0	145.5
High Productivity (1985 RPA)	292.7	86.1	206.6	191.6	56.8	134.8
Current Management	284.0	55.6	228.4	187.1	35.9	151.2
Market Opportunities	281.9	54.0	227.9	185.6	34.9	150.7
Significant Wilderness	296.4	55.0	241.4	194.7	35.7	159.0
Preferred Alternative	285.3	66.7	218.6	187.6	43.4	144.2

TABLE B-47
DISCOUNTED COSTS, BENEFITS, AND PRESENT NET VALUE FOR ALTERNATIVES RANKED ACCORDING TO LEAST COST (4%)

BENCHMARKS	PVC	_ PVC	PVB	_ PVB	PNV	_ PNV
Minimum Level	20.5		198.3		177.8	
Maximum PNV	56.1	+35.6	299.7	+101.4	243.6	+65.8
ALTERNATIVES						
Constrained Budget	35.9	+15.4	254.6	+56.3	218.7	+40.9
Current Budget	49.1	+28.6	282.9	+84.6	233.8	+56.0
Market Opportunities	54.0	+33.5	281.9	+83.6	227.9	+50.1
Significant Wilderness	55.0	+34.5	296.4	+98.1	241.4	+63.6
Current Management	55.6	+35.1	284.0	+85.7	228.4	+50.6
Maximum PNV	58.0	+37.5	293.1	+94.8	235.1	+57.3
Sig. Wilderness-Commodity Emp.	63.3	+42.8	295.2	+96.9	231.9	+54.1
Preferred	66.7	+46.2	285.3	+87.0	218.6	+40.8
High Productivity	86.1	+65.6	292.7	+94.4	206.6	+28.8

The Minimum Level Benchmark has a discounted cost of 20.5 MM dollars for the 50 year planning period. This benchmark provides only custodial management of the Forest; no developed recreation, no livestock grazing and no fuelwood program (except for free use). This benchmark displays the lowest cost possible for maintaining the Humboldt National Forest as a viable unit and will be compared to the discounted costs necessary to implement the alternatives considered in detail.

The Constrained Budget Alternative was developed using a budget constraint of 1.6 MM dollars per year (25 percent below the 10 year average budget for the Humboldt National Forest). This alternative has a discounted cost of 35.9 MM dollars for the 50 year planning period and is very similar to the Minimum Management Benchmark except for providing 250,000 AUMs year in livestock grazing.

The Current Budget Alternative was developed using a budget constraint of 2.2 MM dollars per year for the first decade and has a discounted cost of 49.1 MM dollars for the 50-year planning period. This alternative provides a low level of outputs in all resource areas and has the S.O. Dummy prescription GA costs reduced somewhat in order to meet the budget constraint.

The Market Opportunities Alternative was developed using a budget constraint of 2.6 MM dollars per year for the first decade and has a discounted cost of 54.0 MM dollars. This alternative provides for increased market outputs - livestock AUMs, developed recreation and fuelwood products (fuelwood, Christmas trees, and pinenuts) while still meeting the budget constraint.

The Significant Wilderness Alternative was developed using a budget constraint of 2.6 MM dollars per year for the first decade and has a discounted cost of 55.0 MM dollars for the 50 year planning period. This alternative provides for 100% of the roadless areas on the Forest to go to wilderness and provides for increased non-market outputs - wilderness, dispersed recreation, wildlife and fish and soil and water.

The Current Management Alternative has a discounted cost of 55.6 MM dollars for the 50 year planning period. It provides for 418,744 new wilderness acres and provides for maintaining the current level of outputs for the first decade of the planning period.

The Maximum PNV Alternative has a discounted cost of 58.0 MM dollars for the 50 year planning period. It provides 649,119 new wilderness acres and emphasizes non-commodity outputs.

The Significant Wilderness-Commodity Emphasis Alternative has a discounted cost of 63.3 MM dollars for the 50 year planning period. It provides for 1,169,009 new wilderness acres and emphasizes commodity outputs in the remaining areas.

The Preferred Alternative has a discounted cost of 66.7 MM dollars for the 50 year planning period. It is very similar to the Current Management Alternative but provides only 268,333 new acres of wilderness and increases recreation, livestock grazing, wildlife and minerals.

The High Productivity - 1985 RPA Alternative has a discounted cost of 86.1 MM dollars for the 50 year planning period. It is the highest cost alternative and provides for a high level of outputs from the Forest. It also provides for more road building on the Forest to support providing the higher output levels.

TABLE B-48
DISCOUNTED COSTS, BENEFITS, AND PRESENT NET VALUE
FOR ALTERNATIVES RANKED ACCORDING TO HIGHEST PRESENT NET VALUE (4%)

BENCHMARKS	_ PVC	PVC	_ PVB	PVB	_ PNV	PNV
Minimum Level	-35.6	20.5	-101.4	198.3	-65.8	177.8
Maximum PNV		56.1		299.7		243.6
ALTERNATIVES						
Significant Wilderness	-1.1	55.0	-3.3	296.4	-2.2	241.4
Maximum PNV	+1.9	58.0	-6.6	293.1	-8.5	235.1
Current Budget	-7.0	49.1	-16.8	282.9	-9.8	233.8
Significant Wilderness-Commodity Emp.	+7.2	63.3	-4.5	295.2	-11.7	231.9
Current Management	-0.5	55.6	-15.7	284.0	-15.2	228.4
Market Opportunities	-2.1	54.0	-17.8	281.9	-15.7	227.9
Constrained Budget	-20.2	35.9	-45.1	254.6	-24.9	218.7
Preferred	+10.6	66.7	-14.4	285.3	-31.0	218.6
High Productivity	+30.0	86.1	-7.0	292.7	-37.0	206.6

The Maximum PNV Benchmark has a discounted present net value of 243.6 MM dollars for the 50-year planning period. This benchmark provides for 1,647,000 new acres of wilderness and provides the highest present net value possible on the Humboldt National Forest. The higher value ($8 compared to $3) for a recreational visitor day for wilderness use makes the wilderness prescription very attractive for present net value considerations on most of the roadless areas on the Humboldt National Forest.

The Significant Wilderness Alternative has a discounted present net value of 241.4 MM dollars for the 50-year planning period. This alternative provides for 1,692,451 new acres of wilderness (100 percent of the roadless areas on the Humboldt National Forest) and has only a slightly lower present net value than the benchmark due to the fact that a few roadless areas on the Forest have a prescription that is more cost effective than wilderness. These roadless areas for this alternative are going to wilderness and this causes a slightly lower PNV.

The Maximum PNV Alternative has a discounted present net value of 235.1 MM dollars for the 50-year planning period. This alternative provides 649,119 new acres of wilderness and a corresponding lower PNV.

The Current Budget Alternative has a discounted present net value of 233.8 MM dollars for the 50 year planning period. This alternative provides 265,611 new acres of wilderness and ranks fairly high for present net value because outputs and benefits have been maintained but GA costs have been reduced in order to meet the budget constraints.

The Significant Wilderness-Commodity Emphasis Alternative has a discounted present net value of 231.9 MM dollars for the 50 year planning period. This alternative provides 1,169,009 new acres of wilderness but emphasizes commodity outputs on the remaining areas. In this alternative the emphasis on the commodity outputs which have a more adverse benefit to cost ratio offsets the additional wilderness designations.

The Current Management Alternative has a discounted present net value of 228.4 MM dollars for the 50 year planning period. This alternative provides 418,744 new acres of wilderness and current management with outputs maintained for the first decade.

The Market Opportunities Alternative has a discounted present net value of 227.9 MM dollars for the 50 year planning peirod. This alternative provides no new wilderness acres but the present net value is maintained at a fairly high level by the mineral benefits that are not foregone by wilderness designation.

The Constrained Budget Alterantive has a discounted present net value of 218.7 MM dollars for the 50 year planning period. This alternative provides no new wilderness designations and provides no developed recreation or fuelwood (except free use) outputs in addition to lower livestock grazing outputs.

The Preferred Alternative has a discounted present net value of 218.6 MM dollars for the 50 year planning period. This alternative provides 268,333 new acres of wilderness and increased recreation, livestock grazing, wildlife, and minerals compared to the Current Management Alterantive.

The High Productivity - 1985 RPA Alternative has the lowest discounted present net value, 206.6 MM dollars, over the 50 year planning period. This alternative provides 170,600 acres of new wilderness while providing high productivity outputs on the remaining areas of the Forest. The increased outputs and much more ambitious road building program for this alternative results in a significantly lower present net value.

TABLE B-49
PRESENT NET VALUE AND ANNUAL NON-PRICED OUTPUTS
(1978 DOLLARS)

	PRESENT VALUE			NON-PRICED OUTPUTS						
BENCHMARK OR ALTERNATIVE	PNV	PVC	PVB	DEER NUMBERS (animals)	GRAZING CAPACITY (M AUMs)	CAPTURE & PLACE WILD HORSE & BURRO (animals)	RANGE CONDITION (%)	MIN. WATER QUALITY (M ACRE/FT)	LAND DISTURBED NON- ENERGY (Acres)	LAND DISTURBED ENERGY (Acres)
Min Level Benchmark	177.8	20.5	198.3							
Period 1				53.0	292.7	0	69	1304	1118	11
Period 2				52.5	292.7	0	69	1304	1195	16
Period 3				51.2	292.7	0	69	1304	1194	18
Period 4				50.5	292.7	0	69	1304	1101	16
Period 5				49.2	292.7	0	69	1304	1101	16
Period 6				48.7	292.7	0	69	1304	1077	16
Current Management Benchmark	228.4	55.6	284.0							
Period 1				53.0	294.4	16	70	1318	581	8
Period 2				53.1	301.4	57	71	1318	599	12
Period 3				53.2	305.2	32	73	1318	758	13
Period 4				53.2	310.6	84	75	1318	653	12
Period 5				53.0	319.3	85	77	1318	653	12
Period 6				52.8	319.6	86	80	1318	653	11
Max PNV-Market Benchmark	220.8	61.1	281.9							
Period 1				53.0	294.9	4	69	1348	606	10
Period 2				52.8	303.2	7	69	1348	619	14
Period 3				52.8	310.9	7	71	1348	778	16
Period 4				52.8	315.3	9	72	1348	676	14
Period 5				53.0	323.8	9	74	1348	676	14
Period 6				52.6	323.9	10	76	1348	670	14
Max PNV - Assigned Benchmark	243.6	56.1	299.7							
Period 1				53.0	294.2	6	69	1355	583	8
Period 2				53.5	299.1	17	69	1355	599	12
Period 3				54.3	304.0	12	70	1355	758	13
Period 4				55.1	306.8	24	71	1355	654	12
Period 5				55.7	311.3	26	72	1355	654	12
Period 6				55.8	311.8	26	73	1355	654	11

TABLE B-49
PRESENT NET VALUE AND ANNUAL NON-PRICED OUTPUTS
(1978 DOLLARS)
Continued

BENCHMARK OR ALTERNATIVE	PRESENT VALUE			NON-PRICED OUTPUTS						
	PNV	PVC	PVB	DEER NUMBERS (animals)	GRAZING CAPACITY (M AUMs)	CAPTURE & PLACE WILD HORSE & BURRO (animals)	RANGE CONDITION ($)	MIN. WATER QUALITY (M ACRE/FT)	LAND DISTURBED NON- ENERGY (Acres)	LAND DISTURBED ENERGY (Acres)
Max Range Benchmark	206.6	86.1	292.7							
Period 1				53.0	296.3	16	69	1351	604	8
Period 2				53.4	311.3	58	71	1351	640	13
Period 3				54.1	324.3	33	75	1351	799	13
Period 4				54.9	334.7	84	78	1351	733	12
Period 5				55.6	338.5	85	80	1351	733	12
Period 6				55.9	339.1	85	82	1351	657	12
Max Wildlife Benchmark	220.3	67.4	287.7							
Period 1				53.0	295.8	16	69	1348	398	8
Period 2				53.9	307.7	58	71	1348	402	10
Period 3				55.2	317.7	33	75	1348	562	11
Period 4				56.6	324.8	89	77	1348	506	11
Period 5				58.0	336.4	94	80	1348	457	10
Period 6				58.8	337.1	94	84	1348	457	11
Min Wilderness Benchmark	220.8	61.1	281.9							
Period 1				53.0	294.9	4	69	1348	606	10
Period 2				52.8	303.2	7	69	1348	619	14
Period 3				52.8	310.9	7	71	1348	778	16
Period 4				52.8	315.3	9	72	1348	676	14
Period 5				53.0	323.8	9	74	1348	676	14
Period 6				52.6	323.9	10	76	1348	676	14
Max Wilderness Benchmark	242.6	57.8	300.4							
Period 1				53.0	294.0	6	69	1355	583	8
Period 2				53.5	298.3	17	69	1355	599	12
Period 3				54.3	303.0	12	70	1355	758	13
Period 4				55.1	304.9	24	70	1355	654	12
Period 5				55.7	308.7	26	71	1355	654	12
Period 6				55.8	308.7	26	72	1355	654	11

TABLE B-49
PRESENT NET VALUE AND ANNUAL NON-PRICED OUTPUTS
(1978 DOLLARS)
Continued

	PRESENT VALUE			NON-PRICED OUTPUTS						
BENCHMARK OR ALTERNATIVE	PNV	PVC	PVB	DEER NUMBERS (animals)	GRAZING CAPACITY (M AUMs)	CAPTURE & PLACE WILD HORSE & BURRO	RANGE CONDITION (%)	MIN. WATER QUALITY (M ACRE/FT)	LAND DISTURBED NON- ENERGY (Acres)	LAND DISTURBED ENERGY (Acres)
Significant Wilderness Commodity Emp.	231.9	63.3	295.2							
Period 1				53.0	294.1	3	69	1355	588	8
Period 2				53.3	298.9	6	69	1355	604	13
Period 3				53.9	303.6	6	68	1355	763	14
Period 4				54.4	306.0	7	69	1355	659	12
Period 5				55.0	311.5	9	70	1355	659	12
Period 6				55.1	311.4	9	71	1355	658	12
Max PNV	235.1	58.0	293.1							
Period 1				53.0	294.7	13	69	1354	585	8
Period 2				53.4	301.8	49	70	1354	600	12
Period 3				54.1	308.4	28	72	1354	759	13
Period 4				54.9	312.3	70	73	1354	654	12
Period 5				55.5	320.6	72	75	1354	654	12
Period 6				55.6	320.5	72	76	1354	654	11
Current Budget	233.8	49.1	282.9							
Period 1				53.0	293.6	0	69	1316	776	10
Period 2				52.7	296.4	0	67	1316	810	14
Period 3				51.6	297.7	0	67	1316	915	16
Period 4				51.3	298.0	0	67	1316	812	14
Period 5				50.2	303.6	0	68	1316	812	14
Period 6				49.8	302.7	0	68	1316	807	13
Constrained Budget	218.7	35.9	254.6							
Period 1				53.0	292.7	0	69	1304	1118	11
Period 2				52.5	292.7	0	69	1304	1195	16
Period 3				51.2	292.7	0	69	1304	1194	18
Period 4				50.5	292.7	0	69	1304	1101	16
Period 5				49.2	292.7	0	69	1304	1101	16
Period 6				48.7	292.7	0	69	1304	1077	16

TABLE B-49
PRESENT NET VALUE AND ANNUAL NON-PRICED OUTPUTS
(1978 DOLLARS)
Continued

	PRESENT VALUE			NON-PRICED OUTPUTS						
BENCHMARK OR ALTERNATIVE	PNV	PVC	PVB	DEER NUMBERS (animals)	GRAZING CAPACITY (M AUMs)	CAPTURE & PLACE WILD HORSE & BURRO (animals)	RANGE CONDITION (%)	MIN. WATER QUALITY (M ACRE/FT)	LAND DISTURBED (NON-ENERGY (Acres)	LAND DISTURBED ENERGY (Acres)
High Productivity (1985 RPA)	206.6	86.1	292.7							
Period 1				53.0	296.3	16	70	1358	673	5
Period 2				53.4	311.3	58	72	1358	636	6
Period 3				54.2	324.3	33	75	1358	635	6
Period 4				55.0	334.7	87	79	1358	583	7
Period 5				55.7	338.5	91	81	1358	532	6
Period 6				56.1	339.1	91	83	1358	532	7
Current Management	228.4	55.6	284.0							
Period 1				53.0	294.4	16	70	1318	581	8
Period 2				53.1	301.4	57	71	1318	599	12
Period 3				53.2	305.2	32	73	1318	758	13
Period 4				53.2	310.6	84	75	1318	653	12
Period 5				53.0	319.3	85	77	1318	653	12
Period 6				52.8	319.6	86	80	1318	653	11
Market Opportunities	227.9	54.0	281.9							
Period 1				53.0	294.9	4	69	1348	606	10
Period 2				52.8	303.2	7	69	1348	619	14
Period 3				52.8	310.9	7	71	1348	778	16
Period 4				52.8	315.3	9	72	1348	676	14
Period 5				53.0	323.8	10	74	1348	676	14
Period 6				52.6	323.9	10	76	1348	670	14
Significant Wilderness	241.4	55.0	296.4							
Period 1				53.0	293.9	3	69	1355	585	8
Period 2				53.5	298.0	6	68	1355	600	12
Period 3				54.2	302.5	6	69	1355	759	14
Period 4				55.6	304.3	6	69	1355	655	12
Period 5				55.7	307.8	6	70	1355	655	12
Period 6				55.7	307.7	6	70	1355	655	12

TABLE B-49
PRESENT NET VALUE AND ANNUAL NON-PRICED OUTPUTS
(1978 DOLLARS)
Continued

BENCHMARK OR ALTERNATIVE	PRESENT VALUE			NON-PRICED OUTPUTS						
	PNV	PVC	PVB	DEER NUMBERS (animals)	GRAZING CAPACITY (M AUMs)	CAPTURE & PLACE WILD HORSE & BURRO (animals)	RANGE CONDITION ($)	MTN. WATER QUALITY (M ACRE/FT)	LAND DISTURBED NON- ENERGY (Acres)	LAND DISTURBED ENERGY (Acres)
Preferred Alternative	218.6	66.7	285.3							
Period 1				53.0	295.6	34	69	1311	483	11
Period 2				53.5	305.1	41	72	1311	488	11
Period 3				54.3	314.2	58	75	1311	647	12
Period 4				54.4	319.5	33	77	1311	572	11
Period 5				55.0	329.6	91	79	1311	543	11
Period 6				55.3	330.1	101	83	1311	543	10

PERIOD LENGTHS:
1 - 5 Years 1986 - 1990
2 - 5 Years 1991 - 1995
3 - 5 Years 1996 - 2000
4 - 10 Years 2001 - 2010
5 - 10 Years 2011 - 2020
6 - 15 Years 2021 - 2035

Appendix C

APPENDIX C

ROADLESS AREA REVIEW AND EVALUATION

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- Roadless Area (RA) Descriptions/Conditions and/or Potentials......C-2

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227	Ruby Mountains	C-28
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229	Santa Rosa	C-42
230/C	Quinn River	C-50
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371	Grant Range	C-205
372	Jarbidge	C-213
373	Lime Creek	C-221
374	Elk Mountain	C-228
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376	Copper Mountain	C-241
377	Rattlesnake	C-249
378	Robinson Canyon	C-256
379	Rocky Gulch	C-263
380	Bruneau River	C-270

RA#	RA Name	PAGE
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382	Merritt Mountain	C-284
383	Happy Camp	C-290
384	Log Creek	C-292
385	Salmon Creek	C-298
386	Fawn Creek	C-299
387	Whiterock	C-301
388	Wildhorse	C-309
389	Independence	C-317
390	Haystack	C-325
391	Highland Ridge	C-332
836	McCall	C-339
837	Granite Springs	C-345
838	Lampson	C-347
839	Duckwater	C-353

APPENDIX C
ROADLESS AREA REVIEW AND EVALUATION

Introduction

The State of California and various environmental organizations claimed in a lawsuit (California vs. Block) that the Final EIS for the RARE II evaluation was legally flawed. On January 8, 1980, Judge Karlton of the U. S. District Court ruled that the RARE II Final EIS had designated National Forest roadless areas as either: (1) Recommended Wilderness, (2) Further Planning, or (3) Non-Wilderness. Areas designated for Further Planning were to be evaluated more in depth in the Forest Planning process. Areas recommended for wilderness would remain unchanged within the Forest Planning alternatives, and areas designated as non-wilderness would be subject to other land and resource uses.

The United States appealed the decision to the Ninth Circuit Court of Appeals, but this Court affirmed the District Court's decision of October 22, 1982. There were no additional appeals.

On February 1, 1983, John B. Crowell, Jr., Assistant Secretary of Agriculture, announced that roadless areas previously studied for wilderness potential would be subject to reevaluation. This required revisions of the Land and Resource Management Planning Regulations for National Forest System Lands. The proposed rule to revise 36 CFR 219.17, Wilderness Designation, appeared in the Federal Register on April 18, 1983, for public review and comment. The final ruling that roadless areas on National Forest lands would be reevaluated became effective October 7, 1983.

On March 9, 1983, R. Max Peterson, Chief of the Forest Service, issued field direction concerning management of roadless areas subject to reevaluation during the Forest planning process. Part of this direction was to involve public participation activities at the Forest level on roadless area reevaluation.

On July 8, 1983, J. S. Tixier, Regional Forester for the Intermountain Region, issued instructions to the Region 4 Forests on methods to be used to initiate public involvement in roadless area reevaluation. The process would begin with the preparation of maps of roadless areas that had been inventoried either in RARE I, RARE II, and/or unit plans, along with modifications that had occurred or had been planned since the last evaluation. Each roadless area also would be described as to its environmental, wilderness, and resource attributes. This information would be made available to federal, state, county and local agencies; elected officials; public and private organizations; and the public, for review and comment during the latter half of 1983.

See Appendix A for a description of public involvement conducted in conjunction with the Forest's planning process.

Certain steps within the Forest planning process had been or were being completed when the change of direction was received. Thus, the various documents and process developed during the planning process were revised and the reevaluation of roadless areas has been incorporated into applicable chapters of the DEIS, which is reflected in the Plan.

This Appendix includes site-specific information used in the roadless area reevaluation. Twentythree roadless areas on the Forest were inventoried during RARE II evaluation. Fifty-five roadless areas were reviewed during the roadless area reevaluation process. These inventoried roadless areas comprise about 75 percent of the land base administered by the Forest. Impacts from resource development and road construction since the 1978 RARE II inventory have affected portions of the roadless area on the Forest. Five roadless areas were dropped from consideration during the reevaluation as a result of resource development since RARE II.

Table C-1 lists the roadless areas which were evaluated during the Forest's planning process. Code numbers and area names are the same as used in the roadless area reevaluation inventory.

There were no roadless areas on the Humboldt National Forest shared with adjacent National Forests. The Mount Moriah roadless area is shared with the Bureau of Land Management and is discussed in this appendix.

II. Roadless Area Descriptions, Conditions and/or Potentials.

Each inventoried roadless area described herein is included in its entirety in at least one of the Draft Environmental Impact Statement (DEIS) Forest Planning Alternatives. When there were feasible boundary adjustments which better reflected the emphasis of an alternative, the modified area also was included in one or more of DEIS alternatives described in Chapter II.

The following format was used to describe and evaluate each roadless area:

1. Description (Location, geography, vegetation, current uses, special attractions).

2. Capability (Wilderness characteristics, such as integrity, naturalness, solitude, opportunities for primitive recreation and challenging experiences, and any special features). Boundary modifications also are discussed.

3. Availability (The area's known resources and existing and potential uses).

4. Need (Proximity to designated wilderness, Congressional and public interest in the area for wilderness, and other expressions of need).

5. The effects of wilderness/nonwilderness designations for the roadless areas, including:

   a. Management prescriptions by alternatives (Table A).
   b. Effects of alternatives on the areas wilderness character (Table B).
   c. Environmental consequences of wilderness/non-wilderness designations (Table C).
   d. Anticipated effects of the preferred alternative.

TABLE C-1—Areas Identified as Roadless or Essentially Roadless on the Humboldt National Forest

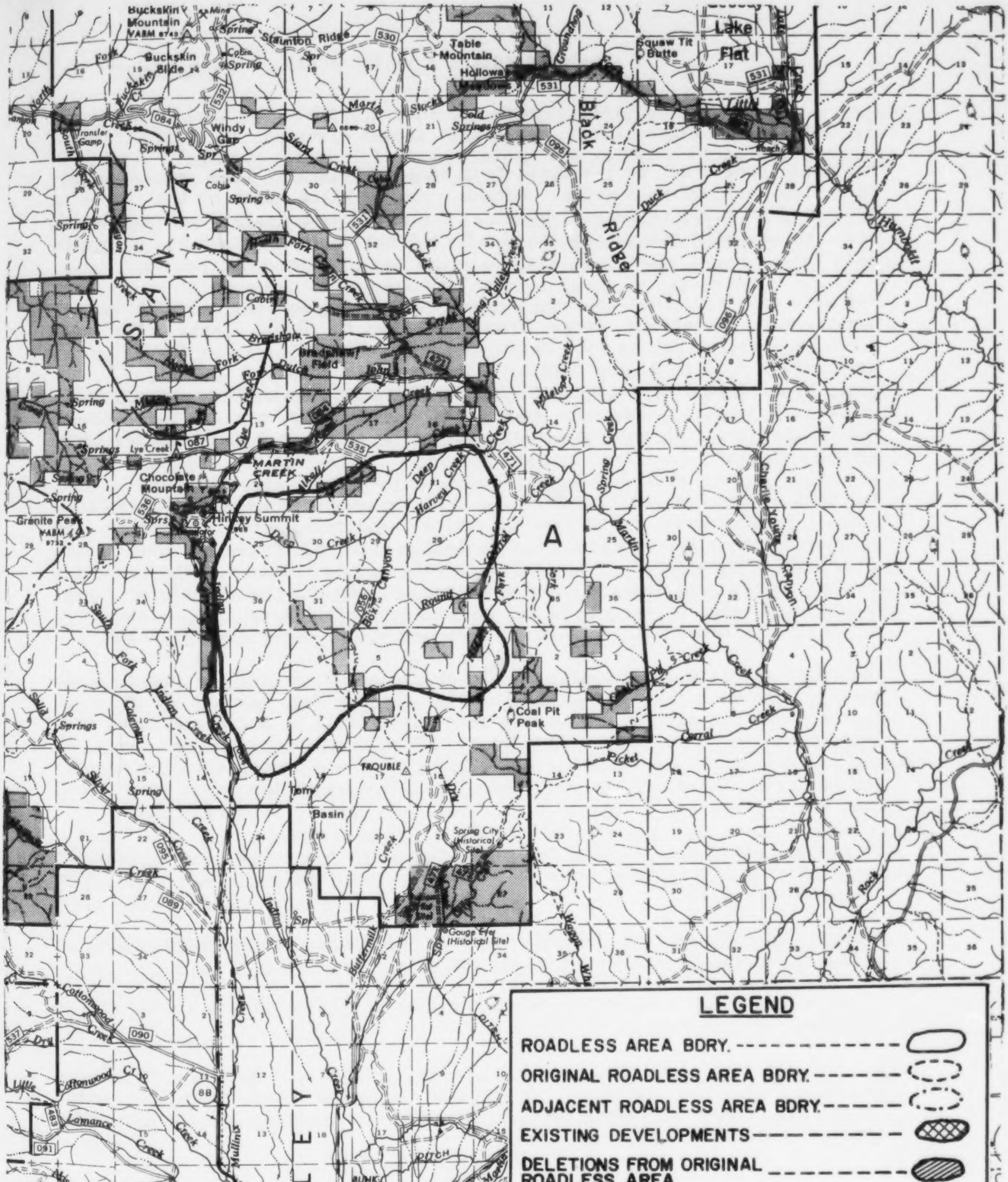
Code	Area Name	Total Acres	Non-N.F. Acres	N.F. Acres	R.A. Acreage Developed Since 1978	Acres Added During Reevaluation	Total N.F. R.A. Acres
A	A	13,350	950	12,400	0	0	12,400
B	B	9,880	1,080	8,800	0	0	8,800
226	East Humboldt	23,945	5,445	18,500	5,746	6,725	18,500
227	Soldier Lake	15,556	3,256	12,300	4,483	229	12,300
228	Pearl Peak	11,890	0	11,890	1,236	0	11,890
229	Santa Rosa	76,270	4,160	72,110	1,436	0	70,674
230C	Quinn River (Santa Rosa R.D.)	71,150	2,040	69,100	0	0	69,100
351	Eight Mile	5,280	0	5,280	76	0	5,204
352	Mount Moriah	62,774	2,074	60,700	17,232	2,074	60,700
353	Seigel	8,849	0	8,849	0	0	8,849
354	North Schell	50,882	179	50,703	884	0	49,819
355	South Schell	110,701	120	110,581	22,677	0	110,581
356	Duck Creek Mountains	13,353	650	12,703	0	0	12,703
357	Cave Creek	7,340	120	7,220	0	0	7,220
358	Cooper	11,000	240	10,760	2,410	0	8,350
359	Wheeler Peak	51,750	50	51,700	16,363	0	51,700
360	Quinn	82,348	247	82,101	911	0	82,101
361	Black Springs	10,235	0	10,235	0	0	10,235
362A	White Pine North	23,757	40	23,717	91	0	23,626
362B	White Pine South	11,238	0	11,238	80	0	11,158
363	Mokomoke	14,501	430	14,071	14,071	0	Dropped
364	Shellback	79,291	0	79,291	961	0	78,330
365A	Bald Mountain North	8,678	0	8,678	275	0	8,403
365B	Bald Mountain South	11,776	0	11,776	0	0	11,776
366A	Cottonwood North	8,858	0	8,858	0	0	8,858
366B	Cottonwood South	17,306	0	17,306	1,250	0	16,056
367	Ruby Mountains	57,064	1,464	55,600	1,495	2,257	55,600
368	Red Mountain	31,095	0	31,095	2,547	0	28,548
369	Wilhoites	11,068	0	11,068	0	0	11,068
370	Ward Mountain	12,976	0	12,976	0	0	12,976

TABLE C-1 (Continued)

371	Grant Range	43,140	40	43,100	47,687	0	43,100
372	Jarbidge	27,825	1,425	26,400	71,035	0	26,400
373	Lime Creek	11,616	103	11,507	0	0	11,507
374	Elk Mountain	12,575	0	12,575	0	0	12,575
375	Flat Creek	13,441	720	12,721	0	0	12,721
376	Copper Mountain	32,767	320	32,447	396	0	32,447
377	Rattlesnake	23,280	968	22,312	0	0	22,312
378	Robinson Canyon	7,960	0	7,960	0	0	7,960
379	Rocky Gulch	8,520	80	8,440	0	0	8,440
380	Bruneau River	34,859	320	34,539	991	0	33,548
381	Mahoganies	11,040	120	10,920	0	0	10,920
382	Merritt Mountain	41,000	560	40,440	2,410	0	38,030
383	Happy Camp	17,640	2,120	15,520	15,520	0	Dropped
384	Log Creek	19,520	160	19,360	259	0	19,101
385	Salmon Creek	6,200	440	5,760	5,760	0	Dropped
386	Fawn Creek	6,960	360	6,600	6,600	0	Dropped
387	Whiterock	23,920	920	23,000	625	0	22,375
388	Wildhorse	69,680	9,880	59,800	0	0	59,800
389	Independence	56,640	2,520	54,120	26,215	0	27,905
390	Haystack	24,880	600	24,280	0	0	24,280
391	Highland Ridge	33,605	0	33,605	34,800	0	33,605
836	McCall	6,160	0	6,160	1,128	0	5,032
837	Granite Springs	4,805	0	4,805	4,805	0	Dropped
838	Lampson	9,058	0	9,058	0	0	9,058
839	Duckwater	43,716	0	43,716	10,858	0	43,716

6. A map showing (1) original roadless area boundary, (2) boundary adjustments made to eliminate areas developed since the RARE II inventory that no longer meet the minimum definition of wilderness, (3) additions to original roadless area, and (4) non-National Forest land.

The map legend also shows areas deleted from the original area. There are two categories: (1) areas that were segregated from the main roadless area and no longer meet site requirements for wilderness and (2) areas that would be deleted in alternative boundary evaluations. These are explained in the narratives when appropriate.


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
A
Buckskin Mountain
Buckskin Slide
Stauton Ridge
Table Mountain
Hollowa Meadows
Squaw Tit Butte
Lake Flat
Black Ridge
Windy Gap
Martin
Cold Springs
Duck Creek
Humboldt
Bradshaw Field
Chocolate Mountain
MARTIN CREEK
Hinkey Summit
Granite Peak
Lye Creek
Deep Creek
Harvey Creek
Box Canyon
Round
Coal Pit Peak
Spring Creek
Martin Creek
Charlie Young Canyon
Corral Creek
Picket
Rock Creek
TROUBLE
Tom Basin
Spring City (Historical Site)
Gouge Eye (Historical Site)
Buttermilk
Indian Creek
South Fork
Coleman
Cottonwood
Dry Creek
Little Cottonwood Cr.
Lamance Creek
North Fk Hanson Creek
Mullinix Creek
Paradise Valley
BUNK HOUSE
Cemetery
Ranch
Landing Strip
DITCH
VALLEY
SANTA
R. 4
T. 42 N.

ROADLESS AREA A - 12,400 ACRES

1. Description

Roadless Area "A" on the Santa Rosa Ranger District lies approximately 50 miles north of Winnemucca, Nevada, and 10 miles north of the ranching community of Paradise Valley, Nevada. The area can be easily reached on the west by the main access road to the Forest and on the east by an unimproved dirt road.

The area is a northwest-southeast oriented mountain covered principally with sagebrush. Elevations range from 5,500 feet to 8,600 feet. The area contains several unique rock features that are visible as you travel up the main access road to Hinkey Summit. This rock is volcanic in origin. The soils range from stony, light colored surface horizons to dark colored loamy surface horizons. Subsoils range from clay loam to clay. The erosion hazard is slight to moderate. Precipitation averages from 12 inches to 20 inches annually.

The more common species of vegetation are low sagebrush associated with blue grass, needlegrass, squirreltail, phlox, and rabbitbrush. Wyoming big sagebrush is also present in association with blue grass, blue bunch wheatgrass, needlegrass, bitterbrush, and Idaho fescue. Other species present in the area include mountain mahogany, aspen, Great Basin wild rye, cheatgrass, and a variety of annual and perennial forbs. The area lies within the intermountain sagebrush/sagebrush steppe ecosystem (3130-49).

The major wildlife species present are chukar and Hungarian partridge, sage grouse, and mule deer. Deer have habitat ranging from limited winter range in the lower elevations, extending into spring-fall at mid-elevations, then into summer range at higher elevations. Fish populations are not large due to lack of viable stream habitat. The main stream drainage in the area is Indian Creek. There are several other small streams in the upper basin areas that are tributaries to Martin Creek, but they have no fishery value.

Currently, this area is used primarily for livestock grazing. It contains portions of the Buttermilk and Granite Peak allotments. The total AUMs allocated are 3,500.

Another important use of the area is dispersed recreation which is estimated at 2,000 recreation visitor days per year.

To date, there has been no significant mining activity. There are no oil or gas leases in the area.

The value of this area as a watershed is not critical. However, this area is unique on the District because it contains many mountain meadow complexes. Some of these meadows are in poor condition due to the past effects of livestock grazing.

2. Capability

Livestock grazing has diminished the natural integrity of the area with construction of several fences and water developments including metal troughs. Segments of vehicle tracks along the mountain ridge and in Round Corral Basin have also reduced the integrity.

Opportunities for both solitude and primitive recreation are moderate because of the open nature of the country. Special features in the area are the rock formations in the vicinity of Indian Creek road near Hinkey Summit. No federal or state listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

Dispersed recreation activities will increase as local populations increase and the popularity of outdoor activities increases. The current attraction is deer and upland game bird hunting. ORV activities will continue to increase. Opportunities for winter sports activities, i.e., cross country skiing and snowmobiling are present if access to the area is improved.

Watershed value lies in the presence of the many meadow complexes as previously discussed. However, the potential for rehabilitation of the poor condition lies with more intensive grazing management systems rather than watershed projects because of the high cost per benefit gained with those kinds of projects.

Activities related to timber are nil and will probably continue to be so because of the lack of the resource in this area.

The area is considered to have moderate mineral potential. Mining claims are staked to the south and west of the area. An old mining district is 2 miles south of the area boundary.

There are no identified archaeological sites in the area and there is currently no historical or scientific study taking place. There are no sites under special use permit. There are 950 acres of private land within the roadless area boundary.

No wild fires have occurred within the last 10 years. Insects and disease have not been a problem in the past and are not anticipated to be in the future.

4. Need

The Roadless Area "A" is approximately 50 miles from Winnemucca, Nevada, and 215 miles from Reno, Nevada. The nearest existing wilderness area is the Jarbidge Wilderness which is approximately 105 air miles from this roadless area.

During the RARE I inventory, this area was identified but was not selected for wilderness study by the Chief of the Forest Service. However, a suit--Sierra Club, et al., vs. Butz, et al--determined that these areas be further evaluated in the land use planning process. Evaluation was conducted during the Santa Rosa Unit Planning process, and the area was allocated to nonwilderness use because of low wilderness quality and disinterest by the public.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through mailout requests. An analysis of comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process.

5. Preferred Alternative Recommendation

The area is not recommended for wilderness in the preferred alternative.

The development scheduled will normally be near existing roads. Maintenance on existing wildlife habitat improvement structures is scheduled. Range habitat improvement, as well as some Christmas tree harvest is also prescribed. None of these activities are expected to reduce the amount of wilderness available for consideration during the next plan revision. The area has not been withdrawn form mineral entry and the locatable mineral potential is moderate. Unscheduled mineral development could impact wilderness characteristics on some of the area.

TABLE A—ROADLESS AREA MANAGEMENT PRESCIPTIONS BY FOREST PLAN ALTERNATIVE "A" ROADLESS AREA

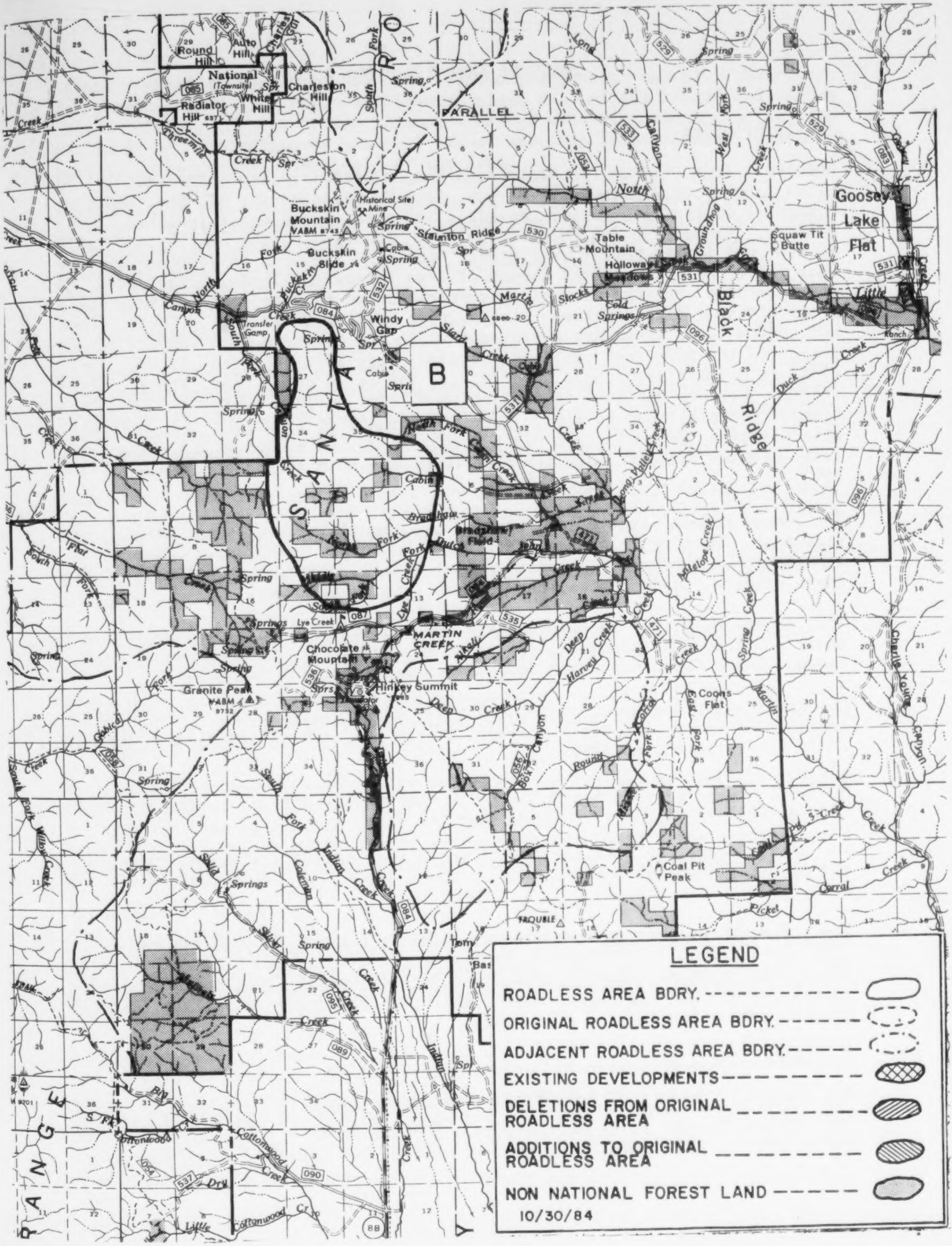
MANAGEMENT PRESCRIPTIONS	FOREST PLAN ALTERNATIVES (ACRES)								
(See Table C-2 for complete description)	A	C	D	E	F	H	I	J	K
Current Situation		12,400		12,400		12,400	12,400		12,400
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev. Rec.(H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev. Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/Sand W/Min/Lvst (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H) WL/Min (M)									
S&W/WL/NMDisp/Mins (H)									
S&W/WL/NMDisp/Min (H); Wood Prods/Dev Rec (M)									
All low			12,400						
All high except Lvstk									
All high except WL					12,400				
All moderate									
Wilderness	12,400							12,400	

TABLE B—IMPACTS ON WILDERNESS CHARACTER "A" ROADLESS AREA

<table>
<tr><th rowspan="2">WILDERNESS CHARACTERISTICS</th><th colspan="9">FOREST PLAN ALTERNATIVE</th></tr>
<tr><th>A</th><th>C</th><th>D</th><th>E</th><th>F</th><th>H</th><th>I</th><th>J</th><th>K</th></tr>
<tr><td>INTEGRITY/NATURALNESS</td><td>All Wilderness characteristics retained.</td><td>Same as H</td><td>Motorized use and habitiat improvement modify solitude.</td><td>Same as H</td><td>Same as D</td><td>Management will be maintained at present level.</td><td>Same as H</td><td>Same as A</td><td>Same as H</td></tr>
<tr><td>SOLITUDE</td><td>Moderate Opportunity due to open nature of country.</td><td>Same as H</td><td>Same as H & more habitat improvement projects.</td><td>Same as H</td><td>Same as D</td><td>Modification from additional roads and ORV use will impact solitude and naturalness.</td><td>Same as H</td><td>Same as A</td><td>Same as H</td></tr>
<tr><td>PRIMITIVE RECREATION</td><td>Opportunity low.</td><td colspan="8">Same as A</td></tr>
<tr><td>CHALLENGING EXPERIENCES</td><td>Minimum experiences present.</td><td colspan="8">Same as A</td></tr>
<tr><td>SPECIAL FEATURES</td><td>No impact expected.</td><td colspan="8">Same as A</td></tr>
</table>

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS "A" ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	12,400	—	—	—	—	—	—	12,400	—
Dispersed Rec.	MRVDS	3.17	—	—	—	—	—	—	3.17	—
NONWILDERNESS	ACRES	—	12,400	12,400	12,400	12,400	12,400	12,400	—	12,400
Dispersed Recreation										
Non-Motorized	MRVDS	—	.24	.24	.24	.26	.24	.24	—	.24
Motorized	MRVDS	—	1.40	1.51	1.40	1.09	1.40	1.40	—	1.40
Wildlife Nonstructural Habitat Improv	ACRES	1.00	—	1.00	—	1.00	—	—	1.00	—
WL/Fish Use	MWFUDS	.59	.59	.58	.59	.47	.59	.59	.59	.59
Livestock	MAUMs	2.72	2.85	2.90	2.85	2.9	2.85	2.85	2.72	2.85
Fuelwood	MCords	—	—	—	—	—	—	—	—	—
Xmas Trees	MTrees	—	.003	.003	—	.007	.003	.003	—	.003
Sediment Yield	MTons									
Soil Improvement	ACRES	.44	.03	.41	.03	.83	.03	.03	.44	.03
Minerals	CASES	.83	.83	.83	.83	1.97	.83	.83	.83	.83


B
SANTA ROSA
RANGE
PARALLEL
National (Townsite)
Round Hill
Auto Hill
Charleston Hill
White Hill
Radiator Hill
Threemile Creek
Buckskin Mountain VABM 8743
Historical Site (Mine)
Stanton Ridge
Buckskin Slide
Table Mountain
Holloway Meadows
Cold Springs
Squaw Tit Butte
Goosey Lake Flat
Black Ridge
Windy Gap
Transfer Camp
Cabin
Martin Creek
Lye Creek
Chocolate Mountain
Hinkey Summit
Granite Peak VABM 9732
Coons Flat
Coal Pit Peak
Trouble
Duck Creek
Deep Creek
Indian Creek
Cottonwood Cr
Little Cottonwood Cr
Charlie Young Canyon
Corral Creek
Pickel Creek
Ranch
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA B - 8,800 ACRES

1. Description

Roadless Area "B" on the Santa Rosa Ranger District lies approximately 60 miles north of Winnemucca, Nevada, and 20 miles north of the ranching community of Paradise Valley, Nevada. The area can be easily reached on the west by Highway 95 and then Canyon Creek road and on the east by the main access road to the Forest over Hinkey Summit. The area is bordered on the west side by private and Bureau of Land Management lands. The area os characterized on the west side by fairly broad canyons opening into high drops off to a high sagebrush plateau with rolling foothills. Cabin Creek and Dutch John Creek drain eastward while the South Fork of Canyon Creek drains to the north and west, elevations range from 6400 feet to 8500 feet. Rock is primarily volcanic in origin. The soils range from stony, light colored surface horizons to dark colored loamy surface horizons. Subsoils range from clay loam to clay. The erosion hazard is slight to moderate. Precipitation averages from eight inches to 20 inches annually. The area lies within the Intermountian sagebrush/sagebrush steppe ecosystem (3130-49).

The more common vegetation species are mountain big sage, basin big sagebrush, Wyoming big sage, low sage, mountain mahogany, bitterbrush, rabbitgrush, Sandberg bluegrass, squirrel tail, bluebunch wheatgrass, Great Basin wildrye, Idaho fescue, needlegrass, and cheat grass.

The major wildlife species present are chukar and Hungarian partridge, mountian lion, sage grouse, and mule deer. Mule deer use the area as summer range. Cabin Creek and Dutch John Creeks are important fisheries.

Currently this area is used primarily for livestock grazing. It contains portions of the Martin Basin and West Side Flat Creek allotments. The total AUM's are estimated at 1875.

Another important use of the area is dispersed recreation. The estimated recreation visitor days for the area total 500.

To date, there has been so significant mining activity although there are old mine tailings dotting the area. There are no oil or gas leases in the area.

The value of the area as a watershed is fairly high. Cabin Creek and Dutch John Creek are tributaries to Martin Creek which is an important water source in Paradise Valley. The South Fork of Canyon Creek helps replenish ground water in the Quinn River Valley. Watershed stability is not generally considered to be a problem.

2. Capability

The natural integrity of the area has been diminished somewhat by heavy livestock grazing over the years. Many structural and nonstructural improvements have been constructed for the management of livestock, i.e., fences, water troughs, roads, and areas of sagebrush removal. There are four-wheel drive type roads or "tracks" along many of the ridges and fence lines. Other impacts of man include areas of vegetative manipulation and presence of nonindigenous plants. These man-made impacts have somewhat reduced the apparent naturalness of the area.

Opportunities for solitude and primitive recreation are moderate due to the lack of vegetative screening the distance from the perimeter to the core. No outstanding opportunities for challenging experiences are present. No federal or state listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

Dispersed recreation activities are expected to increase as local populations and the popularity of outdoor activities increase. The current attraction is fishing and hunting. ORV activity will continue to increase. There is currently some snowmobile activity in the area, but there is no projected increase in the sport or development of the sport.

Watershed value lies in the production of water for ground water recharge. The potential for watershed improvement is minimal due to lack of funding and the high cost per benefit gained.

Activities related to timber are nil and will continue to be so because of the lack of these resources in this area.

The area has moderate potential for the development of economic mineral resources. Claims adjoin the area to the west and south.

There are no identified archaeological sites in the area and there is currently no historical or scientific study taking place. There are no sites under special use permit.

Fire hazard is high because of the nature of the fuels, however, no fires have occurred within the last 10 years. Insects and disease have not been a problem in the past and are not anticipated to be in the future. Considerable amounts of Non-National forest lands within the roadless area would make it difficult to maintain the integrity of management.

4. Need

Roadless Area "B" is approximately 60 miles from Winnemucca, Nevada, and 225 miles from Reno, Nevada. The nearest existing wilderness area is the Jarbidge Wilderness which is approximately 111 air miles from this roadless area.

During the RARE I inventory, this area was identified but was not selected for wilderness study by the Chief of the Forest Service. However, a suit -- Sierra Club, et al, vs. Butz et al -- determined that these areas be further evaluated in the land planning process. This evaluation was conducted during the Santa Rosa Unit Planning process, and this area was eliminated from further evaluation at that time because of the lack of wilderness quality and general disinterest by the public.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from the effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process.

5. Preferred Alternative Recommendation

The area is not recommended for wilderness in the Preferred Alternative.

The development scheduled will normally be near existing roads. Maintenance on existing wildlife habitat improvement structures is scheduled. Range habitat improvement, as well as some Christmas tree harvest is also prescribed. None of these activities are expected to reduce the amount of wilderness available for consideration during the next plan revision. The area has not been withdrawn from mineral entry and the locatable mineral potential is moderate. Unscheduled mineral development would impact wilderness characteristics on some of the area.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE "B" ROADLESS AREA

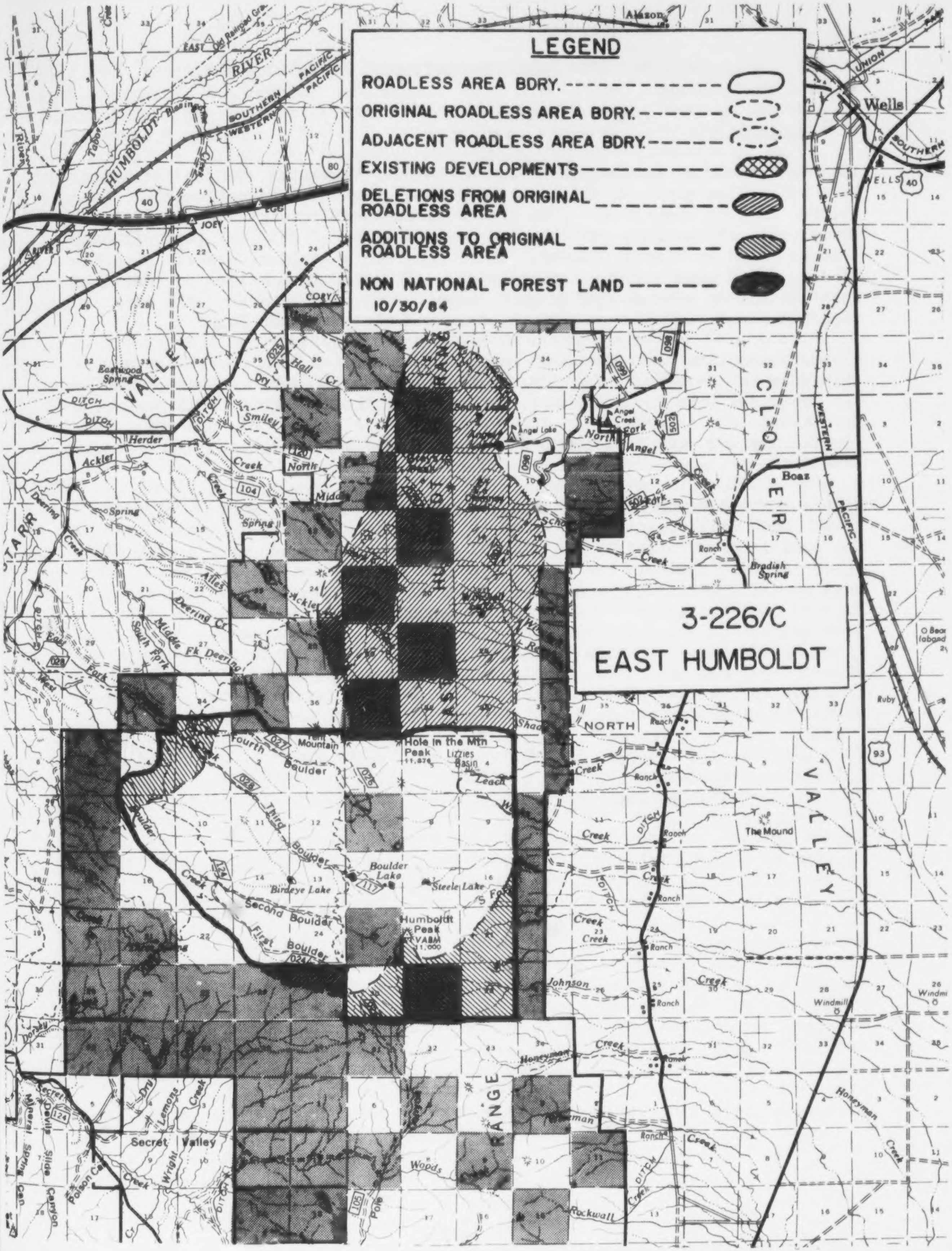
MANAGEMENT PRESCIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		8,800		8,800		8,800	8,800		8,800
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/ Dev Rec (H); WL/S&W Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NM Disp/Min (H); Mot Disp/Wood Prod/Dev Rec (M)									
All Low			8,800						
All high except Lvstk									
All high except WL					8,800				
All moderate									
Wilderness	8,800							8,800	

TABLE B—IMPACTS ON WILDERNESS CHARACTER "B" ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/NATURALNESS	All wilderness characteristics retained.	Same as H	Management will be lower than present level.	Same as H	Management for commodities will be emphasized.	Management will be maintained at present level.	Same as H	Same as A	Same as A
SOLITUDE	Moderate opportunity due to open nature of country.	Same as H	Same as A	Same as H	Same as H with the addition of range imp. projects.	Modification from additional roads, OHV use will impact solitude and naturalness.	Same as H	Same as A	Same as H
PRIMITIVE RECREATION	Same rationale as for solitude.	Same as H	Same as A	Same as H	Same as H	Same rationale as for solitude		Same as H	Same as H
CHALLENGING EXPERIENCES	Minimum experiences present.	———	———	Same as A	———	———	Same as H	Same as A	Same as H
SPECIAL FEATURES	No impact expected.	———	———	Same as A	———	———	Same as H	Same as A	Same as H

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS "B" ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	8,800	—	—	—	—	—	—	8,800	—
Dispersed Rec	MRVDS	2.35	—	—	—	—	—	—	2.35	—
NONWILDERNESS	ACRES		8,800	8,800	8,800	8,800	8,800	8,800	—	8,800
Dispersed Recreation										
Non-Motorized	MRVDS	—	.17	.17	.17	.17	.17	.17	—	.17
Motorized	MRVDS	—	1.04	1.04	1.04	1.11	1.04	1.04	—	1.04
Wildlife Nonstructural Habitat Improv	ACRES	.78	—	—	—	.78	—	—	—	—
WL/Fish Use	MWFUDS	.44	.45	.43	.45	.47	.45	.45	.44	.45
Livestock	MAUMS	1.998	2.11	2.01	2.11	2.14	2.11	2.11	1.998	2.11
Fuelwood	MCords	—	—	—	—	—	—	—	—	
Xmas Trees	MTrees	—	.002	.002	.002	.006	.002	.002	—	.002
Sediment Yield	MTons									
Soil Improvement	ACRES	.32	.02	.02	.02	.62	.02	.02	.32	.02
Minerals	CASES	.61	.61	.45	.61	1.58	.61	.61	.61	.61


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
3-226/C
EAST HUMBOLDT
Wells
HUMBOLDT
RIVER
SOUTHERN PACIFIC
WESTERN PACIFIC
UNION PACIFIC
VALLEY
CLOVER VALLEY
RANGE
Angel Lake
Boaz
Bradish Spring
Hole in the Mtn Peak
Lizzies Basin
Boulder Lake
Birdeye Lake
Steele Lake
Humboldt Peak
The Mound
Secret Valley
Ruby
Joey
Egg
Cory
Eastwood Spring
Herder
Ackler
Deering
Smiley
Johnson Creek
Honeyman Creek
Rockwall
Woods
Pole
NORTH
Mineral Spring Can
Slide Canyon
Poison Ca
Lemons Creek
Wright
Dry
Second Boulder
First Boulder
Third Boulder
Fourth Boulder
Windmill
80
40
93

ROADLESS AREA EAST HUMBOLDT, #226 - 18,500 ACRES

1. Description

The East Humboldt Roadless Area is on the Ruby Mountains Ranger District. The unit lies about 40 miles east of Elko, Nevada. Several peaks over 11,000 feet in elevation, plus the "Hole-in-the-Mountain" are attractions. Additional attractions would be the several miles of fair to good fishing streams found in First, Second, Third and Fourth Boulder Creeks, plus the Herder Creek area and the Alpine Lakes. The area is a unique contrast to the flat valley bottoms on the east, west, and north sides. The area is very visible from I-80 north of the East Humboldt Mountain Range.

A nearly complete lack of public access has prevented much recreation use in this area in the past. In 1982, a trail access for foot and horse traffic was acquired into the south end near Stephens Creek. This trail has been maintained and signed. No other public access exists at present. The possibility of two additional access exists if a pending land exchange is completed.

High and steep topography, with many dissecting canyons, characterizes this area. Some small meadows are found in the heads of U-shaped canyons, with a few small lakes formed by old glacial dikes. Many sheer cliffs and steep talus slopes dominate the higher U-shaped valleys and slopes with rocky shallow soils covering the V-shaped lower elevations. Rocks in the area are highly metamorphosed. The large amounts of rock tend to reduce the erosion potential. Streamflows peak rapidly as the snow melts, then fluctuate rapidly according to amounts of precipitation from summer storms. Evidence of past glacial activity is very prevalent. The elevation ranges from the 11,306 foot Hole-in-the-Mountain Peak to approximately 7,000 feet along the west boundary and 8,000 feet along the east boundary.

The area lies within the Intermountain sagebrush western ponderosa pine (3130-10) and juniper-pinyon woodland (3130-21) ecosystem. The high mountain peaks are nearly devoid of vegetation, with only scattered patches of low-growing grasses and forbs. The high side slopes have limber pine, which grades to aspen stands and then mountain mahogany and other brush species as the elevation drops. The meadows are dominated by sedges and shrubby cinquefoil. Throughout the various elevations, sagebrush and grass types can be found interspersed through the tree and mountain brush area.

Based upon public comments the boundary of this roadless area has been modified. The intent of the modifications were to clearly define that portion of the East Humboldt Roadless Area containing the highest quality wilderness values. The area north of the Hole in the Mountain Peak and Tent Mountain was not considered part of the final roadless area due to extensive conflicts with intermingled private land. The area above Angel Lake was excluded due to concentrated motorized winter sports activities. A proposed land exchange involving the area southeast of Humboldt Peak has progressed slowly necessitating its exclusion as part of the final roadless area.

Uses in this area consist of livestock grazing, hunting, fishing, and backpacking. The grazing use breaks down into 2,000 sheep Animal Unit Months (AUMs) and 300 cattle AUMs. About 20 percent of the area is suitable for livestock grazing. The area is only lightly mineralized, and no claims are known to exist at present. No known historical structures exist. Archaeological values exist but are not considered significant. The wildlife resource is considered exceptionally diverse.

2. Capability

The boundary is not very definable as it now exists. This, however, is not seen as a problem, because of the rugged terrain that exists around the area. The natural integrity and appearance of the area is very high, because there has been practically no man-made intrusion, other than grazing of livestock. At present, the opportunity for solitude and primitive recreation is very high, because of the isolation of the area from access and the fact that no roads reach the boundary at any point.

Special features are the prime fishing streams, Hole-in-the-Mountain (locally called Lizzies Window), a small mountain goat herd, and the presence of Himalayan snow partridge. The area is known to contain the Federally listed threatened species of Lahontan cutthroat trout.

3. Availability

Part of the area was identified in the Ruby Mountains-East Humboldt Land Use Plan of 1975 as a possible ski development area. The area was specifically dropped from wilderness consideration at that time beacause of a large amount of private land. The Land Use Plan gave direction to consolidate Federal ownership through purchase or exchange of land. An exchange has already taken place which consolidated much of the land south of Tent Mountain into Federal ownership. An additonal exchange is pending which would consolidate the rest of the area into Federal ownership, except for the proposed ski area, which would go to private ownership. This exchange, if consummated, would also provide a road to a suitable trailhead into the southern portion near Fourth Boulder Creek and a trailhead and a trail access into the northern portion near Greys Creek.

A partial trail system now exists, and additional work could be done to make travel through the area possible without undue difficulty.

Potential for the occurrence and development of economic mineral deposits is low.

The watershed value of the area is high, with very little erosion occurring that is not natural. No need exists for watershed improvement. There are no commercial stands of timber of any kind, except for some aspen. Steep terrain and the lack of roads make utilization of the aspen unlikely, even for firewood, for several decades.

Air quality is high at present, and nothing is foreseen which will change this in the near future. Fire potential is low because of the high, cool nature of the area. Only a few small fires have occurred here over the last few years, even with increased human use.

4. Need

The nearest existing wilderness is in the Jarbidge Mountain Range, about 50 miles north of this area. This area was originally inventoried in RARE I. The 3130-10 and 3130-21 ecosystems are not unique to this area alone and probably are not needed to assure future representation.

The largest population centers close to the area are Salt Lake City, Utah, approximately 200 miles to the east, and Reno, Nevada 350 miles to the west.

Many of the written comments concerning the Ruby Mountains-East Humboldt Planning Unit Final Environmental Statement dealt with the wilderness issue. As a rule, the local population at that time was mostly rural, primarily ranchers who were opposed to wilderness. Approximately an equal number of comments were received from out of Elko County which were generally in favor of wilderness designation.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through independent and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. Analyzing the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process other than one comment expressing an opinion that the area may have gas and oil potential.

5. Preferred Alternative Recommendation

18,500 acres are recommended for wilderness in the Preferred Alternative. The area has a very high degree of natural integrity and opportunity for solitude. Furthermore, boundary adjustments have been used to effectively minimize significant resource conflicts.

The boundary for this area (see map) largely eliminates uses that would conflict with wilderness. Upon legislative enactment this area would be withdrawn from mineral entry subject to valid existing mineral rights.

This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant.

The remaining area is designated for non-wilderness uses. It is estimated that most of this area would be available for wilderness consideration during the next plan revision, provided that land exchanges are successful in resolving the checkerboard land pattern.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 226 ROADLESS AREA

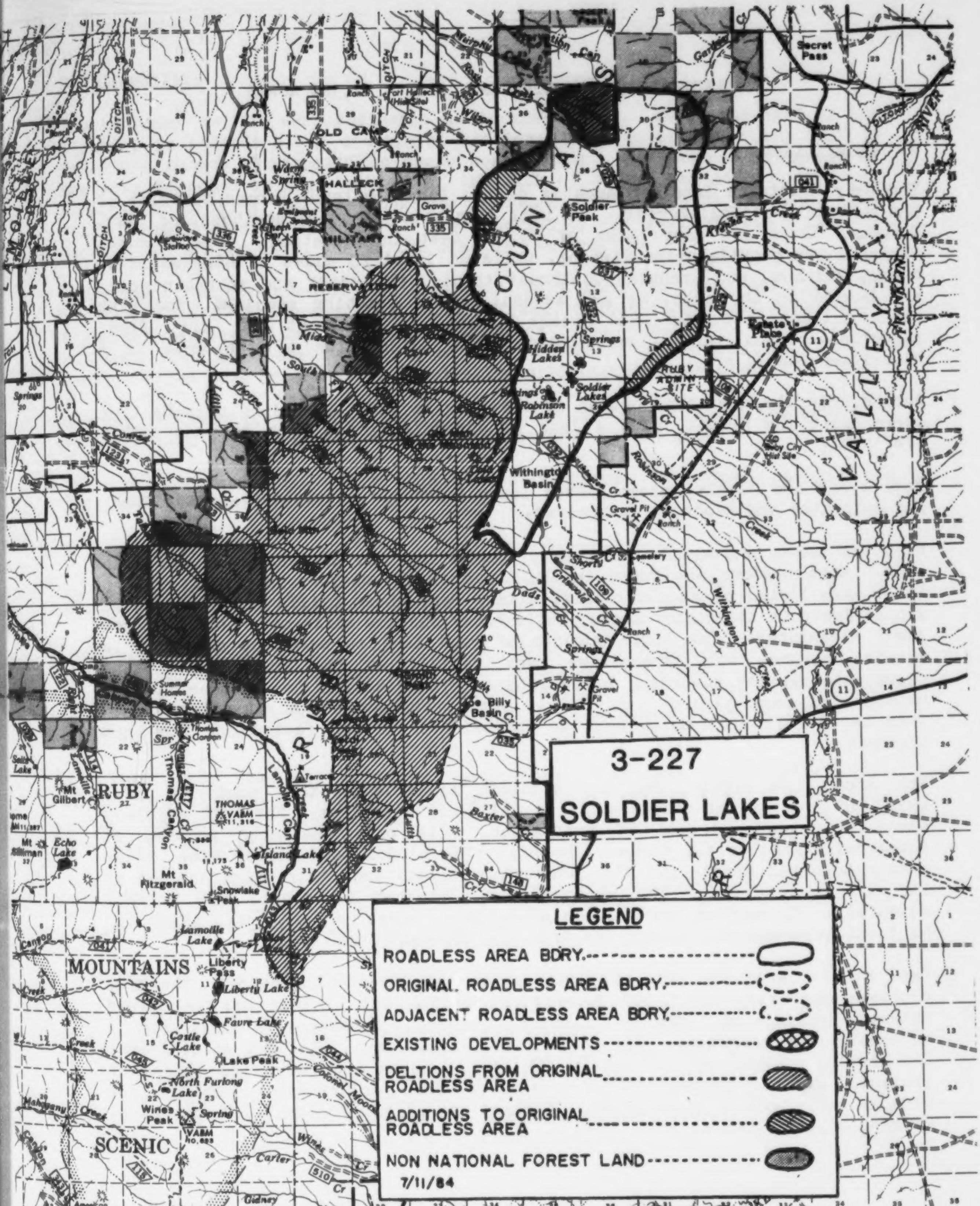
MANAGEMENT PRESCRIPTIONS See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						22,962	22,962	1,602	
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); Wl/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			22,962	22,962					
All high except Lvstk									
All high except WL					22,962				4462
All moderate									18500
Wilderness	22,962	22,962						21,360	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 226 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Retain all wilderness characteristics.	Same as A	Increased ORV use will modify integrity.	Same as D	Increased emphasis on commodities will modify integrity.	Management will be maintained at present level.	Same as H	Maintain wilderness characteristics on 21,360 acres.	Maintain Wilderness characteristics on 18,500 acres.
SOLITUDE	Rated high due to isolation of area.	Same as A	Solitude and primitive recreation will be impacted by the increased ORV use.	Same as D	Scheduled improvement projects will detract from solitude and primitive recreation.	Solitude will not change from present.	Same as H	Solitude will be maintained on 21,360 acres.	Solitude will be maintained on 18,500 acres.
PRIMITIVE RECREATION	Same as H	Same as H	Same as H	Same as H	Same as H	Same as solitude.	Same as H	Same as H	Same as H
CHALLENGING EXPERIENCES	Rate high due to the rugged terrain and isolation.	Same as A							
SPECIAL FEATURES	Hole-in-the mountain, mountain goat herd, Lahontan cutthroat trout. No Change.	Same as A							

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 226 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	22,962	22,962	—	—	—	—	—	21,360	18,500
Dispersed Rec	MRVDS	2.97	2.97	—	—	—	—	—	2.75	2.34
NONWILDERNESS	ACRES	—	—	22,962	22,962	22,962	22,962	22,962	1,602	4,462
Dispersed Recreation										
Non-Motorized	MRVDS	—	—	.25	.25	1.22	.25	.25	.01	.15
Motorized	MRVDS	—	—	1.61	1.61	1.75	1.61	1.61	.09	.30
Wildlife Nonstructural Habitat Improv	ACRES	3.11	3.11	—	—	3.11	—	—	3.11	—
WL/Fish Use	MWFUDS	11.63	11.63	11.60	11.60	11.63	11.62	11.62	11.46	11.62
Livestock	MAUMS	3.87	3.87	3.87	3.87	4.29	3.70	3.70	3.81	3.86
Fuelwood	MCORDS	—	—	.11	.11	.19	.11	.11	.01	.089
Xmas Trees	MTREES	—	—	.52	.52	1.05	.52	.52	.03	.42
Sediment Yield	MTONS									
Soil Improvement	ACRES	2.14	2.14	—	—	4.87	—	—	2.14	—
Minerals	CASES	14.27	14.27	10.70	10.70	31.06	15.33	15.33	14.13	15.33


3-227
SOLDIER LAKES
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
Secret Pass
OLD CAMP
HALLECK
MILITARY
RESERVATION
Soldier Peak
Hidden Lakes
Soldier Lakes
Robinson Lake
Withington Basin
Estate Place
RUBY
MOUNTAINS
SCENIC
Mt Gilbert
Echo Lake
Mt Fitzgerald
Snowlake Peak
Lamoille Lake
Liberty Pass
Liberty Lake
Favre Lake
Castle Lake
Lake Peak
North Furlong Lake
Wines Peak
THOMAS VABM
Island Lake
Terrace
Billy Basin
Baxter
Summer Homes
Thomas Canyon
VALLEY
FRANKLIN
RIVER
PARALLEL
Chokecherry Cr
Carter
Gidney
American Beauty Mine
Battle Creek Mines
Mahogany Creek
Wilson
Warm Spring
Grove
Springs
Gravel Pit
Ranch

ROADLESS AREA RUBY MOUNTAINS, #227 - 12,300 ACRES

1. Description

The Ruby Mountains Roadless Area is on the Ruby Mountains Ranger District of the Humboldt National Forest. The unit lies about 30 miles southeast of Elko, Nevada. There are many peaks of 10,000 feet in elevation. Over a dozen alpine lakes provide prime fishing, while at least 25 miles of streams offer brook, rainbow, and Lahontan Cutthroat trout. Mule deer and mountain goats are hunted in the area, as are several upland gamebird species. The high alpine lakes, meadows and peaks stand in contract to the flat, sagebrush-covered valleys surrounding them. A portion of the area is a classified Scenic Area.

Access into the northern portion of the area is very limited by private land surrounding the Forest, plus a lack of adequate trails from any accessible trailhead.

Rock types are highly metamorphosed lower Paleozoic, limestones, sandstones, and dolomites and Mesozoic intrusives.

High and steep topography with many dissecting canyons characterizes this area. Some meadows are found in the heads of the cnayons, generally with a small lake formed by an old glacial dike. Many sheer cliffs and steep talus slopes dominate the higher areas, while rocky shallow soils cover the V-shaped lower elevations. The large amounts of rock tend to make the area low in erosive nature, but streamflows peak rapidly as the snow melts, then flucturate rapidly according to amounts of precipitation from summer storms. Evidence of past glacial activity is very prevalent. The elevation ranges from the 10,872 foot Smith Peak to approximately 7,000 feet along the west boundary.

The area lies within the Intermountain sagebrush-western ponderosa pine (3130-10) and juniper-pinyon woodland (3130-21) ecosystem. The high mountain peaks are nearly devoid of vegetation, with only scattered patches of low-growing grasses and forbs. The high side slopes have limber pine, which grades to aspen stands and then mountain mahogany and other brush species as the elevation drops. The meadows are dominated by sedges and shrubby cinqufoil. Throughout the various elevations, sagebrush and grass types can be found interspersed through the tree and mountain brush areas.

Uses in this area are primarily recreation and livestock grazing. The area receives approximately 5,000 Recreation Visitor Days. This use is spread between backpacking, hiking, fishing, hunting, horseback riding, and a helicopter ski operation. The grazing use breaks down into 1800 sheep Animal Unit Months (AUMs) and 500 cattle AUMs in the area and 800 acres closed to grazing. About 25 percent of the area is suitable for livestock grazing. The area is only lightly mineralized. Archaeological values are not known to be of much significance at this time.

2. Capability

The boundary is not very definable as it now exists. About one-half of the boundary is located along unsurveyed section lines, while the other half is metes and bounds from peaks to creek confluences. The natural integrity of the area is rated as high because of the lack of modern man-made intrusions, other than grazing of livestock and evidence of wilderness camping. The natural appearance is very high. The opportunity for solitude and primitive recreation is also high, due to the size of the area.

Based upon public comment modifications were made to the roadless area boundary. An area encompassing Soldier Peak, Soldier Lakes and Withington Basin was delineated as recommended wilderness. The remainder of the original roadless area has been removed from the wilderness recommendation. These modifications were necessary to resolve the wilderness/heli-ski issue.

Special features of the area include the pristine fishing lakes the presence of a mountain goat herd, and a designated National Scenic Trail.

The area is known to contain the Federally listed threatened species of Lahontan Cutthroat trout.

3. Availability

Land exchanges may help to consolidate ownership. The unit has low potential for the occurrence of economic mineral deposits.

The watershed value of the area is high, with very little erosion occurring that is not natural. No need exists for watershed improvement. There are no commercial stands of timber of any kind, except for some aspen. The lack of roads and steep terrain make utilization of the aspen unlikely, even for firewood.

Air quality is high and it is not anticipated that this high quality will change in the near future. Fire potential is low because of the high elevations and cool temperatures of the area. Only a few small fires have occurred here over the last few years, even with increased human use.

The opportunity exists to put in more trails, thereby spreading out the use over more of the area. A helicopter ski permit exists on this area which is issued on a multi-year basis for commercial use.

4. Need

The nearest existing wilderness is in the Jarbidge Mountain Range, about 70 miles north of this area. This area was originally inventoried in RARE I; then in preparing the Unit Plan for the Ruby Mountains, the northern portion (227) was dropped out. The south portion was further inventoried in RARE II and with some boundary adjustements and acreage additions, was accepted as an Administratively Endorsed Wilderness. The 3130-10 and 3130-21 ecosystems are not unique to this area alone and probably are not needed to assure future representation.

The largest population centers close to the area are Salt Lake City, Utah, approxiamtely 220 miles to the east, and Reno, Nevada 350 miles to the west.

During RARE II, the majority of both local and nonlocal comments favored wilderness deisgnation for the #367 portion of the area. During unit planning, the local population was opposed to wilderness classification.

The #367 portion was allocated to wilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

Under the Preferred Alternative 12,300 acres are recommended for wilderness. The area has a very high degree of natural integrity and opportunity for solitude. Furthermore, boundary adjustments have been used to effectively minimize significant resource conflicts.

The boundary for this area (see map) largely eliminates uses that would conflict with wilderness such as mining and helicopter skiing. Upon legislative enactment this area would be withdrawn from mineral entry subject to valid existing rights. This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant.

That portion of the Ruby Mountains Roadless Area approximate to Soldier Lakes will hereafter be referred to as the Soldier Lakes Recommended Wilderness Area.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 227 ROADLESS AREA

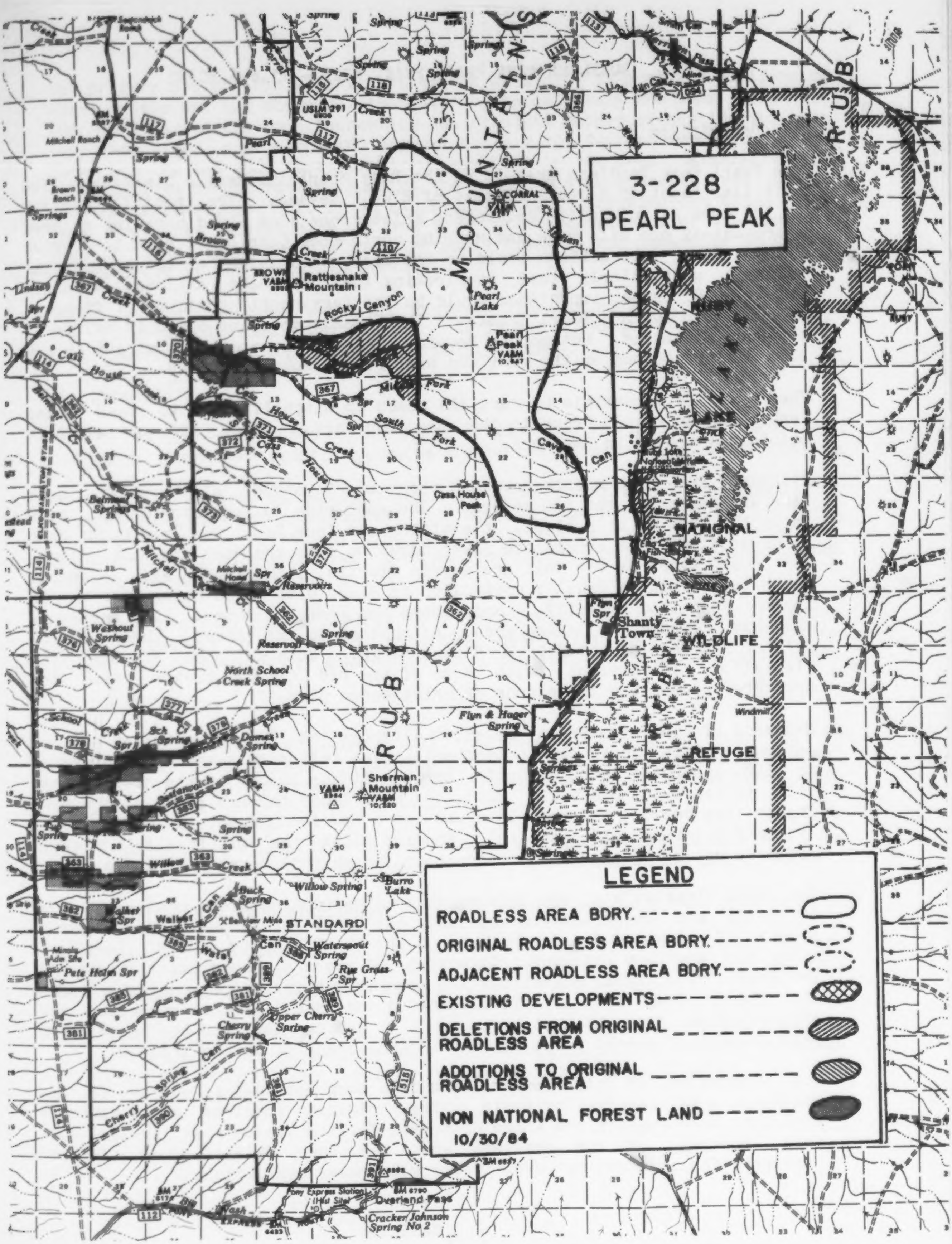
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation			31,874	31,874		31,874			
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									19574
Lvstk (H)	3,467	3,467					31,874		
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); S&W/WL/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); Wl/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H); MDisp/Wood Prod/Dev Rec (M)									
All low									
All high except Lvstk									
All high except WL					31,874				
All moderate									
Wilderness	24,153	24,153						31,874	12,300

TABLE B—IMPACTS ON WILDERNESS CHARACTER 227 ROADLESS AREA

<table>
<tr><th rowspan="2">WILDERNESS CHARACTERISTICS</th><th colspan="9">FOREST PLAN ALTERNATIVE</th></tr>
<tr><th>A</th><th>C</th><th>D</th><th>E</th><th>F</th><th>H</th><th>I</th><th>J</th><th>K</th></tr>
<tr><td>INTEGRITY/ NATURALNESS</td><td>Wilderness characteristics maintained on 24,153 acres.</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as I</td><td>Livestock grazing & ORV use would modify.</td><td>Livestock grazing would modify.</td><td>All wilderness characteristics maintained.</td><td>Same as J</td></tr>
<tr><td>SOLITUDE</td><td>Remaining area would emphasis livestock grazing. Solitude & primitive recreation modified.</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as I</td><td>Resource activi- would modify.</td><td>Same as solitude.</td><td>Opportunity for solitude & primitive recreation is rated high.</td><td>Same as J</td></tr>
<tr><td>PRIMITIVE RECREATION</td><td>Same as Solitude</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as I</td><td>Same as A</td><td>Same as A</td><td>Same as A</td><td>Same as A</td></tr>
<tr><td>CHALLENGING EXPERIENCES</td><td colspan="7">Same as J</td><td>Some existing primarily due to the rugged nature of the area.</td><td>Same as J</td></tr>
<tr><td>SPECIAL FEATURES</td><td>No change from J.</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as H</td><td>National Scenic Trail designation retained. Wildlife features retained.</td><td>Same as H</td><td>National Scenic Trail; mountain goat herd; lakes. No change.</td><td>Same as j</td></tr>
</table>

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 227 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	24,153	24,153	—	—	—	—	—	31,874	12,300
Dispersed Rec	MRVDS	4.24	4.24	—	—	—	—	—	4.77	1.79
NONWILDERNESS	ACRES	3,467	3,467	31,874	31,874	31,874	31,874	31,874	—	19,574
Dispersed Recreation										
Non-Motorized	MRVDS	.02	.02	.21	.21	.36	.21	.21	—	.16
Motorized	MRVDS	.42	.42	3.86	3.86	4.41	3.86	3.86	—	2.57
Wildlife Nonstructural Habitat Improv	ACRES	8.43	8.43	—	—	8.43	—	8.43	8.43	—
WL/Fish Use	MWFUDS	3.94	3.94	3.9	3.9	3.91	3.9	3.91	3.91	3.9
Livestock	MAUMS	4.82	4.82	4.57	4.57	5.31	4.57	5.31	4.77	5.15
Fuelwood	MCORDS	.01	.01	.11	.11	.19	.11	.11	—	.04
Xmas Trees	MTREES	.06	.06	.07	.07	.11	.07	.07	—	.03
Sediment Yield	MTONS									
Soil Improvement	ACRES	.29	.29	—	—	.38	—	.29	.29	—
Minerals	CASES	3.23	3.23	3.23	3.23	4.06	3.23	3.23	3.23	3.23


3-228
PEARL PEAK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
RUBY MOUNTAINS
RUBY LAKE NATIONAL WILDLIFE REFUGE
Pearl Peak
Pearl Lake
Rattlesnake Mountain
Rocky Canyon
Corral
Cass House Peak
Sherman Mountain
Shanty Town
Mitchell Ranch
Brown Ranch
Belmont Springs
Washout Spring
North School Creek Spring
Willow Spring
Burro Lake
Standard
Waterspout Spring
Cherry Spring
Upper Cherry Spring
Pete Holm Spr
Pony Express Station (Hist Site)
Overland Pass
Cracker Johnson Spring No 2
Flyn & Hager Spring
Windmill

ROADLESS AREA PEARL PEAK, #228 - 11,656 ACRES

1. Description

The Pearl Peak Roadless Area is on the Ruby Mountains Ranger District. The unit lies about 45 miles southeast of Elko, Nevada. The special attaction to the area is primarily the ancient bristlecone pine stand covering an area approxmately one mile wide and running north from Cass House Peak to Corral VABM. Other attractions would be the spectacular views of the surrounding valleys, particularly that overlooking the Ruby Lake National Wildlife Refuge. Of lesser importance would be the very short stretches of fishable waters in Brown and Pearl Creeks. The bristlecone pine stand is unique to the Ruby Mountains, but not to Nevada. The area is a stark contrast to the flat valley bottoms on the east and west of the Ruby Mountains.

The area is accessible by dirt 4X4 roads up Mitchell Creek to Cass House Peak and up Pearl Creek to the area boundary. There are no existing maintained trails in the area.

Although some high scenic mountain peaks are involved, slopes on the west side are generally not too severe. The east side is very steep, but there is little area on this slope. Elevations run from Pearl Peak at 10,847 feet to about 7,000 feet around the lower edges on both the west and east sides. The rock types of the unit are quartz diorite, limestone, and dolomite. Depth to bedrock is usually controlled by slope with soils being four to 18 inches deep and gravelly, sandy loams and gravelly loams. The area is somewhat rounded in appearance, as opposed to the steep, sheer cliffs further north in the Ruby Mountains Range. Some evidence of the past glaciation is present, with some of the old cirque basins being the preferred places for the stands of bristlecone pine.

Evidence of past erosion is present, although the large quantities of rock present tend to aid in erosion control. High intensity summer thunderstorms in 1980 generated enough runoff on old cirque basins on the steeper east side to cause considerable mud and rock flows through parts of the 1979 Shanty Town burn. However, this was not a new phenomenon, as evidenced by the many existing old deposits. Erosion within the unit itself is minimal and does not merit special consideration for watershed rehabilitation.

The area lies within the Intermountain sagebrush western ponderosa pine (3130-10) and Juniper-Pinyon woodland (3130-21) ecosystem. Considerable stands of pinyon-juniper are found on the west side at lower elevations along with mountain mahogany. Sagebrush and grass openings exist throughout the area. The higher elevations are generally bristlecone and limber pine. The Shanty Town burn of 1979 eliminated nearly all of the sagebrush and pinyon-juniper from the east slope, but it did not get into the bristlecone pine stands. The east slope now has a seral stage of mostly grasses.

The boundaries of this roadless area have been modified to conform to the roadless area mapping criteria. The original roadless area boundary included approxmately two miles of Forest Service system road number 368. This portion of the roadless area has been deleted from further consideration and does not qualify for wilderness evaluation.

The primary use of this area is livestock grazing. It contains portions of three cattle and two sheep allotments, for approximately 200 AUMs for cattle and 400 AUMs for sheep. Recreation use consists mainly of hunting for mule deer and upland game birds for approximately 2,000 Recreation Visitor Days. There are no man made improvements of any kind in the area. Mineralization is thought to be moderate because of the mining claims present, even though they are undeveloped. No known mining activity of any kind has taken place here from the present back to the time of the completion of the Land Use Plan in 1975. There are claims in Mitchell Creek to the immediate south and Corral Creek to the immediate north.

There may be some rock fences and hunting blinds on ridges in the area that are of archaeological significance. It is not known for sure, but it is felt other archaeological values are fairly scarce.

2. Capability

In at least two places, roads along a ridge and up a canyon mark the boundary. The other points are metes and bounds lines over hill and dell.

There are no impacts of man upon the area other than livestock grazing. The natural integrity and appearance of the area is high because of the absence of modern man's presence. The opportunity for solitude and primitive recreation is moderate as there are two roads to the adjacent boundary, and the area is not very large.

No known federally listed threatened or endangered plants are known to occur in the area. It is felt there is nesting habitat for the American peregrine falcon. This species may inhabit the area now, but confirmation is lacking.

3. Availability

The overall watershed value is high, although little live water exists within the area. Many large springs come out of the mountain at lower elevations which are probably fed from snowpack which occurs in this unit. No need exists for watershed improvement.

No commercial timber exists in the area. The inaccessibility of the area makes it unlikely that any firewood could be harvested in the next decade.

This land is all federally owned and administered by the Forest Service.

The area includes parts of two inactive mining districts. A few claims are staked in the north part of the area. The potential for economic mineral development varies from low to moderate.

Fire potential for the area is high. Fires of any significant size ususally start in the lower elevations and sweep uphill to the ridges. Although fires seldom occur, large fires are the norm when they do occur.

4. Need

The nearest existing wilderness is in the Jarbidge Mountain Range, about 130 miles north of this area. This area was orginally inventoried in RARE I. In preparing the Land Use Plan for the Ruby Mountains-East Humboldts, the area was dropped. The 3130-10 and 3130-21 ecosystems are not unique to this area alone and probably are not needed to assure future representation.

The largest population centers close to the area are Salt Lake City, Utah approximately 260 miles to the east, and Reno, Nevada, 400 miles to the west.

In the written comments concerning the Ruby Mountains-East Humboldt Planning Unit Final Environmental Statement, many dealt with the wilderness issue. As a rule, the local population at that time was mostly rural, primarily ranchers who were opposed to wilderness. Approximately an equal number of comments were received from out of Elko County which were generally in favor of wilderness designation. This area was dropped from consideration for RARE II after completion of the Land Use Plan, as it was felt the area lacked adequate size, and the surrounding area was moderately mineralized. One major mining company has expressed interest in the area as an exploration target.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness in the preferred alternative because it does not exhibit a high degree of solitude and has only a moderate level of opportunity for primitive recreation.

Structural and nonstructural range improvements, maintenance of wildlife habitat improvements, and harvesting of woodland products are part of the management prescription for the area. Off-road vehicle use will increase. Some of these activities, in particular structural range improvements and increased ORV use, will have permanent impacts on the amount of wilderness available for consideration during the next plan revision. The area has not been withdrawn from mineral entry and mineral potential is considered to be low on the area.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 228 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						12,892			
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									11890
Lvstk (H)	1,236	1,236					12,892		
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); S&W/WL/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			12,892	12,892					
All high except Lvstk									
All high except WL					12,892				
All moderate									
Wilderness	11,656	11,656						12,892	0

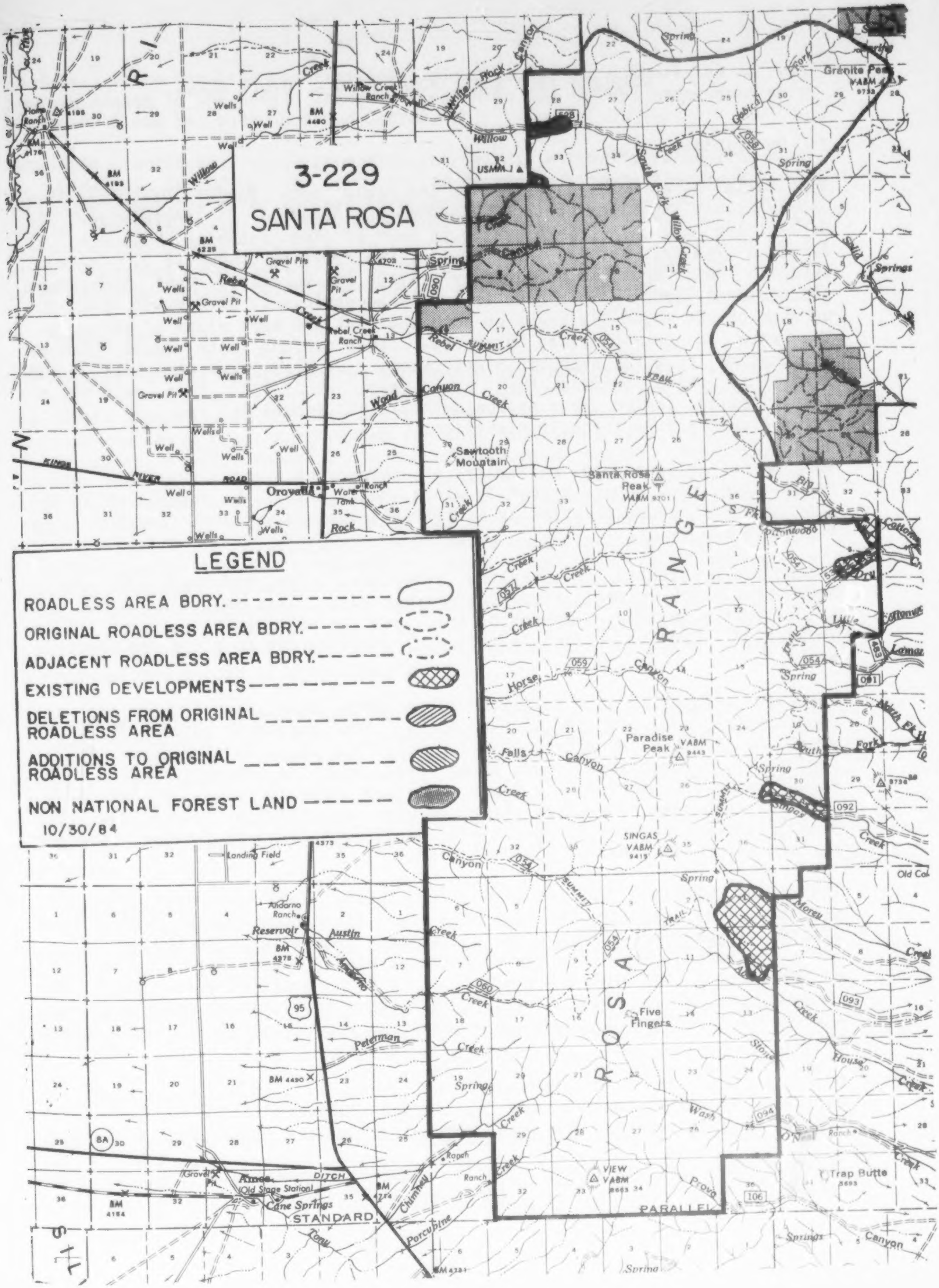
TABLE B—IMPACTS ON WILDERNESS CHARACTER 228 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Integrity & naturalness maintained on 11,656 acres.	Same as A	Management at lower level than present.	Same as D	Commodity resources will be emphasized modification may occur.	Management will remain at present level.	Livestock grazing be emphasized, modification may occur.	Wilderness integrity & naturalness maintained.	Same as H
SOLITUDE	Same as J	Same as J	Same as K	Same as K	Same as K	Same as K	Same as K	Opportunity moderate for solitude.	Solitude impacted by increased ORV use.
PRIMITIVE RECREATION	Same as J	Same as J	Same as K	Same as K	Same as K	Same as K	Same as K	Opportunity moderate due to adjacent roads & small size of area.	Primitive recreation impacted by increased ORV use.
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Limited experiences.	Same as J
SPECIAL FEATURES	No impact	No impact	RNA would be established to protect the bristlecone pine.	Same as D	Same as D	Same as D	Same as D	Bristlecone pine stand.	Same as D

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS

228 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	11,656	11,656	—	—	—	—	—	12,892	—
Dispersed Rec.	MRVDS	1.49	1.49	—	—	—	—	—	1.65	—
NONWILDERNESS	ACRES	1,236	1,236	12,892	12,892	12,892	12,892	12,892	—	12,892
Dispersed Recreation										
Non-Motorized	MRVDS	.01	.01	.07	.07	.12	.07	.07	—	.07
Motorized	MRVDS	.13	.13	1.34	1.34	1.52	1.34	1.34	—	1.34
Wildlife Nonstructural Habitat Improv	ACRES	2.62	2.62	—	—	3.79	—	3.79	2.62	—
WL/Fish Use	MWFUDS	1.36	1.36	1.36	1.36	1.36	1.35	1.36	1.36	1.35
Livestock	MAUMS	1.68	1.68	1.65	1.65	1.84	1.58	1.84	1.65	1.58
Fuelwood	MCORDS	.01	.01	.06	.06	.11	.08	.06	—	.08
Xmas Trees	MTREES	—	—	.02	.02	.06	.02	.02	—	.02
Sediment Yield	MTONS									
Soil Improvement	ACRES	.01	.01	—	—	.10	—	.10	.10	—
Minerals	CASES	1.13	1.13	.80	.80	1.41	1.22	1.22	1.22	1.22


3-229
SANTA ROSA
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
Santa Rosa Peak VABM 9701
Paradise Peak VABM 9443
Singas VABM 9415
Sawtooth Mountain
Five Fingers
Granite Peak
Orovada
Ames (Old Stage Station)
Cane Springs
Rebel Creek Ranch
Willow Creek Ranch
Andorno Ranch
Trap Butte
View VABM
SANTA ROSA RANGE
Kings River Road
STANDARD PARALLEL
95
8A
11 S

ROADLESS AREA SANTA ROSA, #229 - 70,674 ACRES

1. Description

The Santa Rosa Roadless Area on the Santa Rosa Ranger District lies approximately 30 miles north of Winnemucca, Nevada. It encompasses the Santa Rosa mountain range which is west of the ranching community of Paradise Valley, Nevada, and east of the ranching community of Orovada, Nevada. This area is bordered by private and Bureau of Land Management administered lands. This area is easily accessible by dirt roads which run up each of the major drainages on both the east and west sides of the range. The area is characterized by narrow, steep canyons with small streams originating from the high basin watershed. Several peaks rise over 9,000 feet of which Granite Peak is highest at 9,732 feet elevation. Precipitation varies from approximately eight inches to over 23 inches, reflecting the wide range in elevation.

The area is composed primarily of metamorphic and granitic rock. Metamorphic rock occurs primarily along the flanks of the range, while the granitic rock occurs principally as intrusive masses exposed along the core of the range.

Soils have originated from basalts, andesites, tuffs, and rhyolites. Soils have thick, dark colored, loamy surface horizons. They are well leached and are slightly acidic. Subsoils are loamy to clayey with many coarse fragments. Erosion hazard is moderate to severe due to slope and unstable soils.

The major vegetation type is sagebrush and associated grasses which comprise approximately 40 percent of the area. The sagebrush species include mountain big sage, Wyoming big sage, basin big sage, and low sage. Thirty percent of the area is a browse shrub type, with the dominant species being snowberry and bitterbrush. Aspen comprises about 10 percent of the area. The rest is barren range type which includes the granitic intrusions. The area lies within the Intermountain Sagebrush/sagebrush steppe, western ponderosa forest ecosystem (3130-49, 10).

The major wildlife species present are chukar and Hungarian partridge, mountain lion, sage grouse, and mule deer. Deer have habitat ranging from limited winter range in the lower elevations, extending into spring-fall at mid-elevations, then into summer range at higher elevations. The majority of the deer on the District are located in this Roadless Area. All of the streams have fair to good fisheries with Lahontan cutthroat trout occurring in some of the streams. There is a potential for re-introduction of bighorn sheep.

Currently this area is used primarily by livestock. It contains all of the Buffalo, Paradise, Lamance, and Rebel Creek allotments and a portion of the Granite Peak allotment. The total AUMs allocated are approximately 12,672.

Another important use of the area is dispersed recreation. The estimated recreation visitor days for the area total 8,000.

To date, there has been no significant mining activity. There are no oil and gas leases in the area. The only area where any current assessment work has taken place has been in Provo Canyon.

Watershed conditions, while generally improving, currently range from poor to excellent depending in part on the degree of past livestock use. Watershed stability is of concern throughout the area. The combination of easily erodible soils, steep topography, and extreme climatic conditions makes the area susceptible to flash flooding and mud slides. This area is a major watershed and is the source of water for irrigation and of ground water recharge for the Quinn River Valley and Paradise Valley.

2. Capability

The natural integrity of the area has been diminished over time by several of man's activities. Heavy livestock use over the years has changed the vegetative composition of the area. Many structural and non-structural improvements have been constructed for the management of livestock, i.e., fences, water troughs, roads, and areas of sagebrush removal. These tend to diminish the natural appearance of many parts of the area. There are four-wheel drive roads or "tracks" along many of the ridges and fence lines. The Summit Trail also traverses through the area. Other impacts of man which cannot be excluded include areas of vegetative manipulation and the presence of non-indigenous plants. The original size of the area (76,270 acres) has been reduced due to elimination of roads in the Cottonwood and Singas Creek areas, a fenced seeding project in Abel Creek, and 160 acres of private land adjacent to the boundary. The military also has training exercises for their jet fighter aircraft and B-52 bombers which require several low-level flights per day across this Roadless Area.

Opportunities for solitude and primitive recreation are moderate. The visitor traversing this terrain is occasionally enclosed within a canyon or a patch of aspen. Generally, surrounding agricultural areas and major highways are visible from most points in the area.Special features include the area's natural beauty and remnants of early mining activities in some of the canyons. The Lahontan cutthroat trout is a federally listed threatened species found in the area. The area does not provide unusual challenge.

3. Availability

Grazing capacity is expected to increase as range condition improves under management.

Dispersed recreation activities will increase as local populations and the popularity of outdoor activities increase. The current attraction is deer and upland game bird hunting as well as fishing. ORV activities will continue to increase. Opportunities for winter sports activities are and will continue to be minimal.

Overall watershed value is high as previously discussed. However, the potential for watershed improvement is minimal due to the high cost per benefit gained. The extensive watershed damage which occurred during the springs of 1983 and 1984 will take years to heal.

Activities related to timber are limited to the small amount of fuelwood cutting for personal use which occurs in the area. These activites will continue to be minimal because of the lack of the resource in the area.

There is evidence of past mining exploration activity in many of the drainages. Current activity is limited to assessment type work. Major exploration or extraction activity is not expected in the near future. The area has moderate potential for economic mineral development. Mining claims are scattered sparsely over the area.

Identified archaeological sites include rock shelters and chipping sites. A site containing bracken ferns has been suggested to be designated as Research Natural Area. There is currently no historical or scientific study occurring in the area.

There currently are no sites under special use permit and there is no private land within the boundary of the roadless area.

Due to the nature of the fuels, fire potential and hazard is high with fires occurring in Singas Creek, Willow Creek, Provo Creek, Wash O'Neil, and Morey Creek within the last seven years. Insects and disease have not been a problem in the past and are not anticipated to be in the future.

4. Need

This particular Roadless Area is approximately 40 miles from Winnemucca, Nevada and 200 miles from Reno, Nevada. The nearest existing wilderness area is the Jarbidge Wilderness which is approximately 120 air miles east.

During the RARE I inventory, this area was identified, but was not selected for the wilderness study by the chief of the Forest Service. However, a suit -- Sierra Club, et al, vs. Butz, et al-- determined that this area be further evaluated in the land planning process. This evaluation was conducted during the Santa Rosa Unit Planning process. This area was eliminated from further evaluation at that time because of the lack of wilderness quality and disinterest by the public.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process other than one comment expressing an opinion that the area may have gas and oil potential.

5. Preferred Alternative Recommendation

The roadless area is not recommended for wilderness in the Preferred Alternative because it does not exhibit a high degree of natural integrity due to the many improvements and intrusions, and it has few opportunities for solitude because of the surrounding agriculture areas, major highways, and military flight patterns.

Structural and non-structural range and wildlife habitat improvements, and maintenance of such are part of the management prescribed for the area. Increased ORV use is anticipated to occur. These activities in particular the structural range and wildlife habitat improvements, as well as increased ORV use may reduce the amount of wilderness available for consideration during the next plan revision. The area has not been withdrawn from mineral entry. The area has a moderate potential for economic mineral development. Unscheduled mineral development would reduce the amount of wilderness available for consideration during the next plan revision.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 229 ROADLESS AREA

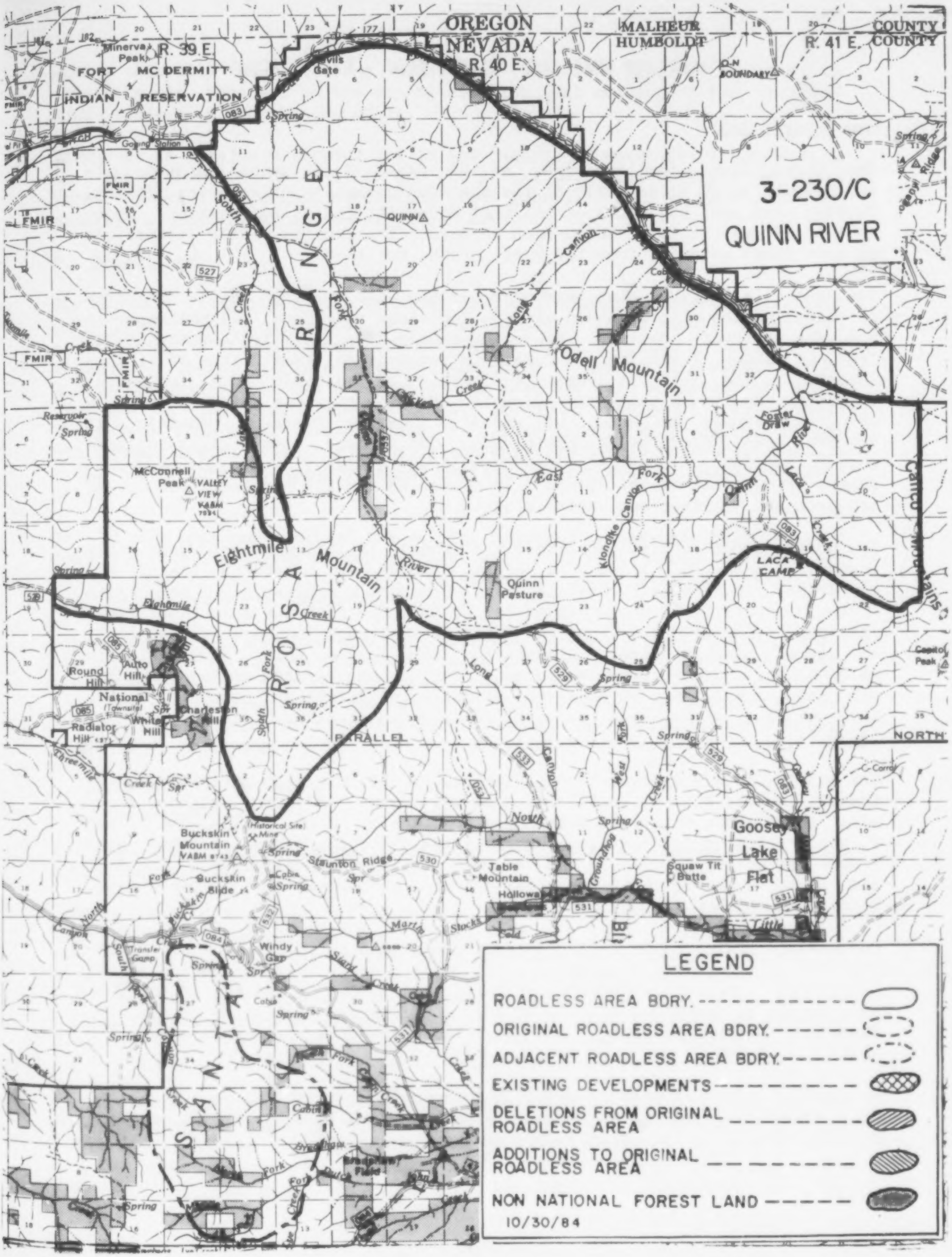
MANAGEMENT PRESCRIPTIONS See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	1,436	72,110					72,110		
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); Wl/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev REc (M)									
All low			72,110	72,110					
All high except Lvstk									
All high except WL					72,110				
All moderate						72,110			72,110
Wilderness	70,674							72,110	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 229 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Existing wilderness integrity & naturalness will be maintained on 70,674 acres.	Same as I	Management level lower than present.	Same as D	Management emphasis will tend towards commodities.	Management level slightly higher than present for noncommodity resources.	Management will continue at present level. Integrity may diminish.	Wilderness integrity & naturalness has been diminished by management activities.	Same a H
SOLITUDE	Same as J	———	———	Same as I	———	———	Increased ORV use & additional mineral exploration will impact solitude.	Opportunities for solitude are are moderate.	Same as I
PRIMITIVE RECREATION	Same as J	———	———	Same as I	———	———	Same as solitude.	Same as solitude.	Same as I
CHALLENGING EXPERIENCES	———	———	———	Same as J	———	———	———	Limited challenging experiences.	Same as J
SPECIAL FEATURES	Same as J	———	———	Same as I	———	———	Historic mining camps may be impacted by by exploration activity.	Historic mining camps & Lahonton cutthroat trout. No impact.	Same as I

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 229 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	70,764	—	—	—	—	—	—	72,110	—
Dispersed Rec	MRVDS	16.65	—	—	—	—	—	—	16.97	—
NONWILDERNESS	ACRES	1,436	72,110	72,110	72,110	72,110	72,110	72,110	—	72,110
Dispersed Recreation										
Non-Motorized	MRVDS	.025	1.25	1.25	1.25	1.39	1.39	1.25	—	1.39
Motorized	MRVDS	.149	7.51	7.51	7.51	8.08	8.08	7.51	—	8.08
Wildlife Nonstructural Habitat Improv	ACRES	5.53	—	—	—	5.64	—	5.64	5.64	5.64
WL/Fish Use	MWFUDS	3.17	3.17	3.14	3.14	3.17	3.18	3.17	3.17	3.18
Livestock	MAUMS	14.57	15.22	14.55	14.55	15.47	15.22	14.55	15.22	3.70
Fuelwood	MCORDS	—	—	—	—	—	—	—	—	—
Xmas Trees	MTREES	—	—	—	—	—	—	—	—	—
Sediment Yield	MTONS									
Soil Improvement	ACRES	2.29	.18	.18	.18	4.45	2.33	.18	2.33	2.33
Minerals	CASES	4.43	4.43	3.24	3.24	10.53	4.43	4.43	4.43	4.43


3-230/C
QUINN RIVER
OREGON
NEVADA
MALHEUR
HUMBOLDT
COUNTY
COUNTY
R. 39 E.
R. 40 E.
R. 41 E.
FORT MC DERMITT INDIAN RESERVATION
Minerva Peak
Devils Gate
Going Station
QUINN
Odell Mountain
Foster Draw
Calico Mountains
McConnell Peak
VALLEY VIEW VABM 7934
Eightmile Mountain
East Fork Quinn River
Klondike Canyon
LACA CAMP
Quinn Pasture
Round Hill
Auto Hill
National (Townsite)
Charleston Hill
White Hill
Radiator Hill
Capitol Peak
PARALLEL
NORTH
ROSA RANGE
SANTA
Buckskin Mountain VABM 6743
Historical Site Mine
Staunton Ridge
Buckskin Slide
Table Mountain
Hollow
Squaw Tit Butte
Goosey Lake Flat
Windy Gap
Transfer Camp
Threemile Creek
Eightmile Creek
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA QUINN RIVER, #230 - 69,100 ACRES

1. Description

The Quinn River Roadless Area on the Santa Rosa Ranger District is approximately 30 miles north of the ranching community of Paradise Valley, Nevada, and east and south of the Fort McDermitt Indian Reservation, which is located just south of the Oregon border. The area is easily accessible by dirt roads entering from the west, south, and east.

The area is mostly a high sagebrush plateau with rolling hills and some dissected basins with mountain slopes, mountain ridgetops, and pediments in the far northwest portion. Elevation ranges from slightly less than 5,000 feet to about 7,900 feet. Precipitation averages from 8 to 15 inches annually. The area is comprised largely of volcanic rock, primarily rhyolite, dacite, basalt, and andesite. Erosion of these volcanic rocks in the area around McConnell Peak and down towards Buckskin Mountain has exposed some intrusive granitic rock. Soils have stony light colored surface horizons. Subsoils range from loamy to clayey. Erosion hazard is slight to moderate except moderate to severe in the far northwest portion of the area due to slope and unstable soils.

The more common species of vegetation found in this area are Wyoming big sagebrush with the associated grass species of bluebunch wheatgrass, bluegrass, squirreltail, needlegrass, Sandberg bluegrass, and some Idaho fescue; mountain big sagebrush on the north slope with its associated plant species of snowberry, brome and Idaho fescue; and low sagebrush with the associated plant species of bluegrass, Idaho fescue, phlox, buckwheat, and rabbitbrush. Other species present include cheatgrass, sedge, mountain mahongany, small aspen patches, and a variety of annual and perennial forbs. The area lies within the Intermountain sagebrush/sagebrush steppe ecosystem (3130-49).

The major wildlife species present are chukar and Hungarian partridge, sage grouse, mountain lion, antelope, and mule deer. California bighorn sheep were introduced into the Eight Mile Drainage in March 1978. The lower elevations are used as antelope summer range, and the majority of the sage grouse strutting grounds on the District are found in this area. The East and South Forks of the Quinn River are good fisheries for German brown, brook, and rainbow trout.

Currently, this area is used primarily for livestock grazing. It contains portions of two cattle allotments; the Quinn River Allotment and the Indian Allotment. The total AUMs are estimated at 10,825. A portion of the area was closed to livestock grazing in 1974. Dispersed recreation is also an important use in the area. The estimated recreation visitor days for the area total 1,100.

A portion of this area is within the Buckskin National Mining District. Past mining activity has been significant economically with several million dollars worth of gold, silver, and mercury taken from the district. Little mining activity has occurred since the 1950's. Exploration work is currently in progress on the mining district just outside of the roadless area boundary on Buckskin Mountain.

This area is a major watershed and is the source of water for irrigation on the Ft. McDermitt Reservation and of ground water recharge for the Quinn River Valley. Watershed conditions are generally fair to good with poor conditions existing along some riparian areas.

2. Capability

The natural integrity of the area has been diminished by several activities over time. Many structural and nonstructural improvements have been constructed for the management of livestock, i.e. corrals, fences, water troughs, a cabin, vehicle tracks, and areas of sagebrush removal. The mining activity that has occurred in the area has left remnants of man's presence in the form of mine tailings, abandoned equipment, and roads. There are four-wheel drive roads or "tracks" along many of the ridges and fence lines. Other impacts of man which cannot be excluded include areas of vegetative manipulation and the appearance of non-indegenous plants.

Much of the area has retained its natural appearance, however, approximately 500 acres in the southeast corner have been revegetated which changes the natural appearance. Also, there is visual evidence of mining activity in the northest corner of the area.

Opportunities for solitude are only moderate due to the lack of topographic and vegetative screening. However, due to the large size of the area, there are many opportunities for primitive recreation. Special features in the area are the Indian rock shelters, sage grouse strutting grounds, and the opportunity to see California bighorn sheep. No federal or State listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

Grazing capacity over much of the area is expected to increase as range condition improves under management.

Grazing will probably not be resumed in the northwest portion of the area that was closed to livestock grazing in 1974, at least in the near future. Much of this portion is considered unsuitable for cattle grazing due to the steep rocky terrain. It would be suitable for domestic sheep grazing, but this activity would pose a threat to the bighorn sheep population due to competition for forage and potential exposure to disease carried by domestic sheep. This portion of the area will be maintained as a refuge for the bighorn sheep until the population enlarges their territory.

As an addition to the mineral activity currently taking place in the Buckskin National Mining District, there has been recent interest in initiating some exploratory drilling on Eight Mile Mountain. This portion of the area has moderate potential for economic mineralization. The remainder of the area is considered to have low potential for the development of economic mineral deposits.

Dispersed recreation activities are expected to increase as local populations and the popularity of outdoor activities increase. The current attraction is big game (antelope) and upland game bird hunting as well as fishing. ORV activities will continue to increase. Opportunities for winter sports activities are minimal.

Overall watershed value is high as previously discussed. However, the potential for watershed improvement is minimal due to high cost per benefit gained.

Activities related to timber are nil and will continue to be so because of a lack of that resource in this area.

Identified archaeological sites include rock shelters and chipping sites. Additional sites are probably present. There is currently no historical or scientific study occurring in the area.

There currently are no sites under special use permits.

Due to the nature of the fuels, fire hazard is high; although there haven't been any fires within the last ten years. Insects and disease have not been problems in the past and are not anticipated to be in the future.

4. Need

The Quinn River Roadless Area is approximately 70 miles from Winnemucca, Nevada and 230 miles from Reno, Nevada. The nearest existing wilderness is the Jarbidge Wilderness which is approximately 110 air miles to the east.

During the RARE I inventory, area 230 was identified but not selected for wilderness study by the Chief of the Forest Service. However, a law suit Sierra Club, et al, vs. Butz, et al, determined that these areas be further evaluated in the Land Planning process. This evaluation was conducted during the Santa Rosa Unit Planning process and this area was eliminated from futher evaluation at that time because of the lack of wilderness quality, and general disinterest by the public.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitude and opinions from those expressed during the Unit Planning process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness in the preferred alternative.

Previously completed range improvement projects, evidence of past mining, current mineral exploration ventures adjacent to the roadless area boundary, and off-road vehicle impacts have diminished the wilderness quality of the roadless area.

Continued range improvement projects, maintenance of some structural wildlife habitat improvements, and increased off-road vehicle use will reduce the amount of wilderness available for consideration during the next plan revision. The area has not been withdrawn from mineral entry. Certain portions of the roadless area have a moderate potential for mineral development. It is likely that these areas will be impacted by unscheduled mining activity rendering the immediate area unsuitable as wilderness.

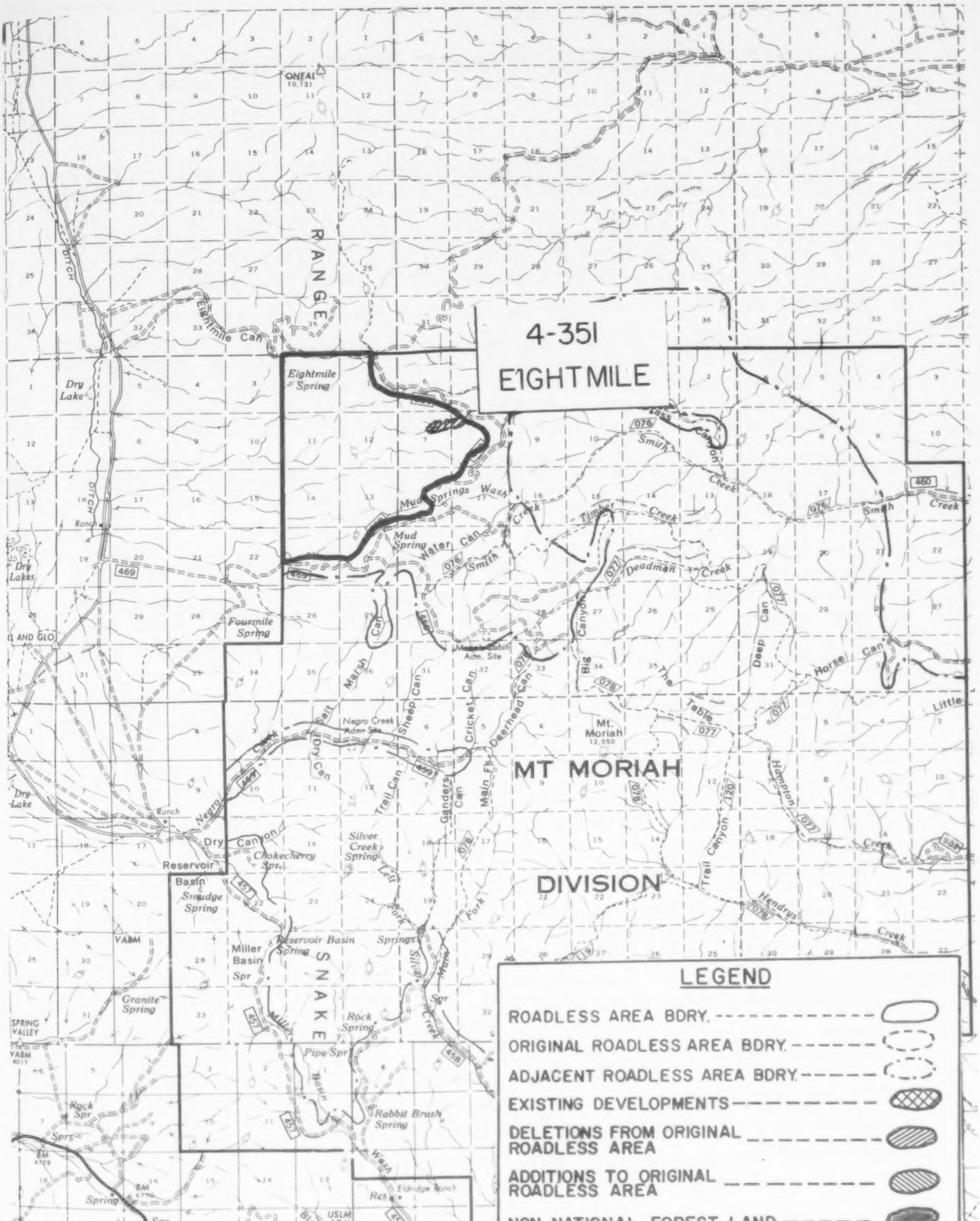
TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 230 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		69,100	69,100	69,100		69,100	69,100		69,100
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H) Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H) WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low									
All high except Lvstk									
All high except WL					69,100				
All moderate									
Wilderness	69,100							69,100	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Same as H	Same as H	Same as H	Management emphasis on commodity resources.	Management will remain at present level.	Same as H	Natural integrity has been diminished over time by range improvements & mining impacts.	Same as H
SOLITUDE	Same as J	Same as H	Same as H	Same as H	Solitude will be impacted by increased improvement activities.	Solitude will be impacted by increased ORV use.	Same as H	Solitude is rated as moderate due to lack of vegetative screening.	Same as H
PRIMITIVE RECREATION	Same as J	Same as H	Same as H	Same as H	Primitive recreation same as solitude.	Primitive recreation will be impacted by increased ORV use.	Same as H	Primitive recreation is high due to the size of the area.	Same as H
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Challenging experiences are limited	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	California bighorn sheep and some archaeological areas.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 230 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	69,100	—	—	—	—	—	—	69,100	—
Dispersed Rec	MRVDS	15.84	—	—	—	—	—	—	15.84	—
NONWILDERNESS	ACRES	—	69,100	69,100	69,100	69,100	69,100	69,100	—	69,100
Dispersed Recreation										
Non-Motorized	MRVDS	—	1.21	1.21	1.21	1.34	1.21	1.21	—	1.21
Motorized	MRVDS	—	7.26	7.26	7.26	7.82	7.26	7.26	—	7.26
Wildlife Nonstructural Habitat Improv	ACRES	5.46	—	—	—	5.46	—	—	5.46	—
WL/Fish Use	MWFUDS	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07
Livestock	MAUMS	14.08	14.72	14.72	14.72	14.97	14.72	14.72	14.08	14.72
Fuelwood	MCORDS	—	—	—	—	—	—	—	—	—
Xmas Trees	MTREES	—	—	—	—	—	—	—	—	—
Sediment Yield	MTONS									
Soil Improvement	ACRES	2.25	.17	.17	.17	4.31	.17	.17	2.25	.17
Minerals	CASES	4.25	4.28	4.28	4.28	10.19	4.28	4.28	4.25	4.28


4-351
EIGHTMILE
RANGE
SNAKE
MT MORIAH
DIVISION
Mt. Moriah 12,050
ONEAL 10,131
Eightmile Can
Eightmile Spring
Dry Lake
Dry Lakes
Mud Springs Wash
Mud Spring
Water Can
Smith Creek
Timber Creek
Deadman Creek
Big Canyon
Deep Can
Horse Can
The Table
Little
Fourmile Spring
Negro Creek Admr Site
Marsh Can
Sheep Can
Cricket Can
Deerhead Can
Dry Can
Trail Can
Ganders Can
Main Fk
Left Fork
Silver Creek Spring
Hampton Creek
Trail Canyon
Hendrys Creek
Negro Creek
Dry Canyon
Reservoir Basin
Chokecherry Spr.
Smudge Spring
Miller Basin Spr
Reservoir Basin Spring
Springs
Granite Spring
Rock Spring
Pipe Spr
Rabbit Brush Spring
Eldridge Ranch
Basin Wash
Black Horse (Site)
Sacramento Pass 7154
Spring Valley
Rock Spr
Ranch
DITCH
076
077
078
120
457
458
459
460
469
50
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA EIGHT MILE, #351 - 5,204 ACRES

1. Description

The Eight Mile Roadless Area is located approximately 32 miles east of Ely, Nevada, in east-central Nevada, and is entirely within White Pine County. It is in the northwest corner of the Mt. Moriah Division. This unit is on the west slope of the northern Snake Range, which extends along the eastern edge of Nevada in the Basin and Range physiographic province. The elongated north-trending range is bounded on the west by Spring Valley and on the east by Snake Valley.

The area is reached by U.S. Highway 50/6 to the south and by the improved dirt road on the east side of Spring Valley. The unimproved dirt roads up Four Mile and Eight Mile Canyons take you to the area proper. There are no trails through the area. Baker, Nevada is the only community in the immediate area. The nearest main population center is Ely, Nevada.

Cliffs and steep canyons are present. Elevations range from 6,000 feet to 8,800 feet. Rock types are quartzite, shale, and livestones. Soils are very rocky and exhibit a moderate erosion potential.

This area lies within the Intermountain sagebrush/ponderosa pine (3130-10) and Intermountain sagebrush/pinyon-juniper woodland (3130-21) ecosystem. Vegetation varies with the elevation. Pinyon pine and juniper dominate the lower slopes. Aspen, mountain mahogany, white and Douglas fir, limber pine, and bristlecone pine are found in the upper elevations. Sagebrush-grass types are located throughout the area.

Current uses of this area are livestock grazing (194 AUMs) and dispersed recreation (250 RVDs). Other resource uses on or adjacent to the area include wildlife habitat, and some ORV use. No mining is occuring at present. No oil and gas leases are present. Seismic work has occurred in the Four Mile area. Hunting is the primary attraction to the area.

2. Capability

The boundaries to this area are the Forest boundary and roads.

The natural integrity of the area is high and relatively unmodified by human activity. A natural appearance is generally present, however, the evidence of past mining activity is still evident in certain localities. A road leading to old lead mine workings and covering about two acres will be excluded from the roadless area.

Other impacts of man that cannot be excluded include areas of nonindigenous plants.

Opportunities for solitude and primitive recreation are both rated as low due to the area's small size. Challenging experiences would be hard to find in this area.

No Federally listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

Hunting, and its associated camping and ORV uses, is the major recreation activity. The potential for additional dispersed activities is not great.

Overall watershed value is considered high because of the annual precipitation and snowpack. There is little potential for watershed improvement due to the high cost per benefit gained.

This area is grazed by cattle with fair to good forage production depending on annual precipitation. Several range improvement fences and water developments are lcoated in the area. The potential for type conversions is low due to the rugged terrain.

There is little if any use of Forest products.

This unit is rated moderate in prospective potential for base metals. Although this area has seen little use in the past, the potential still remains for increased mining activity. A tungsten prospect is within the area.

Lithic scatters are the only archaeological sites.

Present air quality is high.

There is no private land, nor are there any Special Use authorizations at present.

Fire potential is high in this area, although no major fires have occurred recently. Insects and disease are not a problem.

4. Need

The Eight Mile roadless area lies approximately 32 miles east of Ely, Nevada. The nearest existing wilderness area, Jarbidge, lies approximately 192 miles north of the roadless area.

The Intermountain sagebrush/ponderosa pine and Intermountain sagebrush/-pinyon-juniper woodland exosystems are common throughout Nevada, thus wilderness classification of this roadless area to protect this vegetation type is not needed.

This area was originally inventoried in RARE I but not identified for futher wilderness study at that time. During the RARE II process, local public sentiment favored nonwilderness management. Comments from the non-local public generally favored nonwilderness classification also, and the area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses ar each Ranger's and

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Supervisor's office and through mailout requests. The analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

Both structural and non-structural range improvements are part of the management prescription for this area. Off-road vehicle use is not anticipated to increase. None of these activities are expected to reduce the amount of wilderness available for consideration during the next plan revision. The area hs not been withdrawn from mineral entry. The mineral potential for the area is rated as moderate. Unscheduled mineral development may reduce the amount of wilderness available for consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 351 ROADLESS AREA

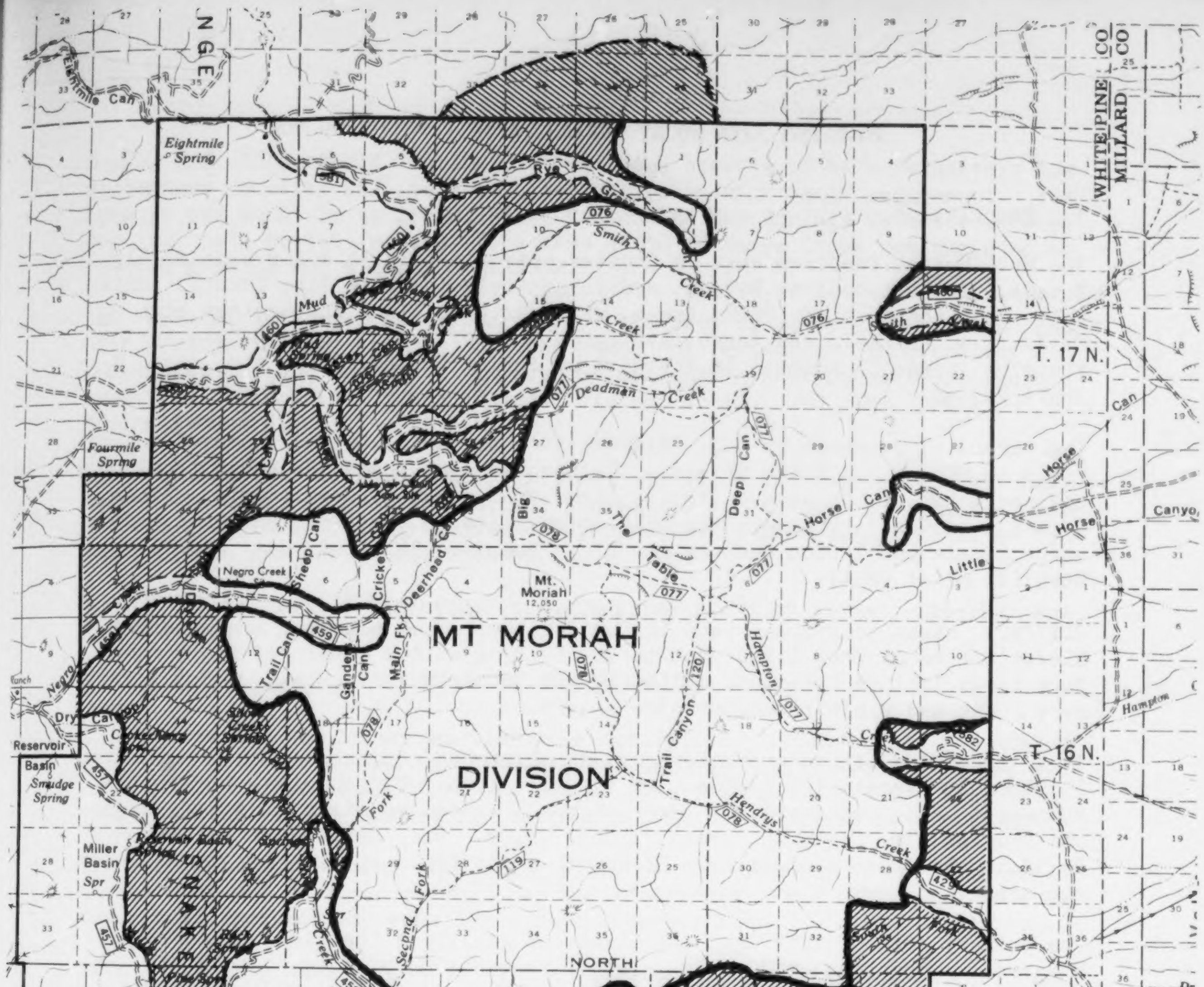
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	76	5,280				5,280	5,280		5,280
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/Wl/NMDisp/Min (H)					5,280				
S&W/Wl/NMDisp/Min (H), MDisp/Wood Prod/Rev Rec (M)									
All low			5,280	5,280					
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	5,204							5,280	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 351 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Wilderness characteristics maintained on 5,204 acres.	Same as H	Management lower than present level.	Same as D	Management emphasizes noncommodity resources.	Management will continue at present level.	Same as H	All wilderness integrity & naturalness maintained.	Same as H
SOLITUDE	————	————	————	Same as J	————	————	————	Opportunities are low.	Same as J
PRIMITIVE RECREATION	————	————	————	Same as J	————	————	————	Opportunities are low.	Same as J
CHALLENGING EXPERIENCES	————	————	————	Same as J	————	————	————	Experience are very limited.	Same as J
SPECIAL FEATURES	————	————	————	Same as J	————	————	————	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 351 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	5,204	—	—	—	—	—	—	5,280	—
Dispersed Rec.	MRVDS	.17	—	—	—	—	—	—	.17	—
NONWILDERNESS	ACRES	76	5,280	5,280	5,280	5,280	5,280	5,280	—	5,280
Dispersed Recreation										
Non-Motorized	MRVDS	—	.01	.01	.01	.02	.01	.01	—	.01
Motorized	MRVDS	—	.15	.15	.15	.15	.15	.15	—	.15
Wildlife Nonstructural Habitat Improv	ACRES	—	—	—	—	1.7	—	—	.37	—
WL/Fish Use	MWFUDS	.12	.12	.12	.12	.12	.12	.12	.12	.12
Livestock	MAUMS	.11	.11	.11	.11	.11	.11	.11	.09	.11
Fuelwood	MCORDS	—	—	—	—	—	—	—	—	—
Xmas Trees	MTREES	—	—	—	—	—	—	—	—	—
Sediment Yield	MTONS									
Soil Improvement	ACRES	—	—	—	—	.01	—	—	.001	—
Minerals	CASES	.4	.4	.12	.12	.69	.4	.4	.4	.4


4-352
MOUNT MORIAH
MT MORIAH
DIVISION
Mt. Moriah
12,050
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
WHITE PINE CO
MILLARD CO
T. 17 N.
T. 16 N.
T. 15 N.
R. 71 E.
NORTH
Eightmile Spring
Fourmile Spring
Smudge Spring
Miller Basin Spr
Rabbit Brush Spring
Negro Creek
Sheep Can
Deadman Creek
Smith Creek
Hampton Creek
Horse Can
Big Table
Deep Can
Trail Canyon
Hendrys Creek
Spring Creek
Silver Creek
Second Fork
Main Fk
Deerhead Can
Cricket Can
Gander Can
Dry Canyon
Reservoir
Eldridge Ranch
Black Horse (Site)
Sacramento Pass
Willow Patch Spr
TELEPHONE LINE
Snake
RANGE
Hy Mont Station

ROADLESS AREA MOUNT MORIAH, #352 - 60,700 ACRES

1. Description

The Mt. Moriah Roadless Area is located approximately 36 miles east of Ely, Nevada, in east-central Nevada, and is entirely in White Pine County. This unit is in the northern Snake Range, which extends along the eastern edge of Nevada in the Basin and Range physiographic province. The elongate north-trending range is bounded on the west by Spring Valley and on the east by Snake Valley.

The area is accessed by U.S. Highway 50/6 on the south and improved dirt roads in Spring and Snake Valleys. Unimproved dirt roads are taken to reach the perimeter of the area. Trails leave from some of these points. Baker, Nevada, and Gandy, Utah are the only communities in the immediate area. The nearest main population centers are Ely, Nevada, (36 miles west) and Delta, Utah (87 miles east).

Cliffs, steep canyons, and a unique geologic plateau are present. Elevations range from 6,300 feet to 12,050 feet at the summit of Mt. Moriah. Rock types include Paleozoic sediments and Tertiary instrusives. Soils are very rocky and exhibit some erosion potential.

This area lies within the Intermountain sagebrush/ponderosa pine ecosystem (3130-010). Vegetation varies with the elevation. Pinyon pine, juniper and Ponderosa Pine dominate the lower slopes. Aspen, mountain mahogany, white and Douglas fir, Engleman spruce, limber pine, and bristlecone pine are found in the upper elevations. Sagebrush-grass types are located throughout the area.

The primary uses of this area are livestock grazing, (cattle 1682 AUMs) and dispersed recreation (1600 RVDs). Other resource uses on or adjacent to the area include wildlife habitat, firewood removal and minimal mining activity. There are approximately 15,360 acres within the area that are potentially mineralized. Gold is the major metal mined. Building stone is mined in Hendry's Creek. Garnet was mined in Hampton Creek. No oil and gas leases are present. Seismic work has occurred in the Four Mile area.

Mt. Moriah and the 10,500 foot Moriah Table are the center of the area's attraction. Hunting, hiking, sight-seeing, and other dispersed activities are attractions. Special attractions include bristlecone pine, archaeological sites, and Rocky Mountain bighorn sheep.

2. Capability

Several boundary modifications have been used in this area to exclude areas of low wilderness value or those where significant resource conflicts would occur. The areas near the Forest boundary in Smith Creek, Hampton Creek, and Hendry's Creek have been excluded due to existing mining claims and roads in those drainages. The boundary was adjusted in the southwest quadrant to a more manageable location. The area approximate to Reservoir

Basin and Chokecherry spring was excluded because of it's relatively low wilderness quality and to eliminate conflicts with range management. The area in and about Smith Creek, Water Canyon and Mud Springs Wash was deleted due to it's roaded nature. The area north of Negro Creek was excluded to resolve grazing and mineral conflicts.

The natural integrity and appearance of the area is rated as very high and high, respectively because of the lack of man-made improvements and ruggedness of the terrain. Impacts of man that cannot be excluded include areas of vegetative manipulation, mining areas, and the presence of nonindigenous plants.

Opportunities for solitude and primitive recreation are both rated very high due to its size, lack of access, and vegetative screening. Special features in the area include Rocky Mountain bighorn sheep, archaeological sites on Smith Creek, and the unique Utah cutthroat trout.

No federally listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

All recreation use occurs as dispersed activities. Hunting is the major activity, followed by hiking, fishing, camping, and sight-seeing. There are no developed sites adjacent to the area. There is potential for additional dispersed activities because of the area's size and topographic screening.

Overall watershed value is high with little potential for watershed improvement due to the high cost per benefit gained. The value results from the annual snowpack and relatively high precipitation.

This area is grazed by cattle with annual forage production considered fair to good. Several range improvement fences and water developments are located in the area. Type conversions have occurred in some places.

The area contains pinenut gathering areas along the east, south, and west sides. Cutting of juniper posts, aspen poles, and fuelwood occurs periodically throughout the unit. There are opportunities to maintain and possibly increase these activities to a small extent.

This unit is rated moderate in prospective potential for base and precious metals. Gold, garnet, and building stone have been mined in the past. Potential still remains for increased mining activity. Several claims are within the roadless boundary.

Archaeological sites including caves utilized by Indians, pictographs, and lithic scatters occur in the area.

Present air quality is high.

Special Use authorizations include two water transmissions.

There is no private land within this unit.

Fire potential in this area is high due to lightening occurence although no major fires have occurred recently. Insects and disease are not problems.

4. Need

This roadless area lies approximately 36 miles east of Ely. The nearest existing wilderness area, Jarbidge, lies approximately 160 miles north of the roadless area.

The Intermountain sagebrush/ponderosa pine ecosystem is common throughout Nevada, thus wilderness classification of the Mt. Moriah Roadless Area to protect this vegetation type is not needed.

This area was originally inventoried in RARE I and identified for further wilderness study at that time. During the RARE II process local public sentiment favored nonwilderness management. Comment from the nonlocal public generally favored wilderness classification. The area was designated for further planning to be further evaluated in the Forest Plan.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Major mining companies have expressed interest in this area as an exploration target.

5. Preferred Alternative Recommendation

Under the Preferred Alternative 60,700 acres are recommended for wilderness designation due to it's high degree of natural integrity and opportunity for solitude.

The boundary for this area (see map) largely eliminates uses that would conflict with wilderness such as mining and vegetation manipulation. Upon legislative enactment this area would be withdrawn from mineral entry subject to valid existing mineral rights.

This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant. The exception is the mineral resource where the values are not known but considered to be significant.

The remaining acres are designated for non-wilderness uses. The majority of the mining claims occur in this area. Some other resource uses such as utilization of pinyon/juniper occurs but the opportunity for other resource use is minimal. With the exception of mined areas, it is estimated that most of this area would be available for wilderness consideration during the next plan revision.

TABLE A--ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 352 ROADLESS AREA

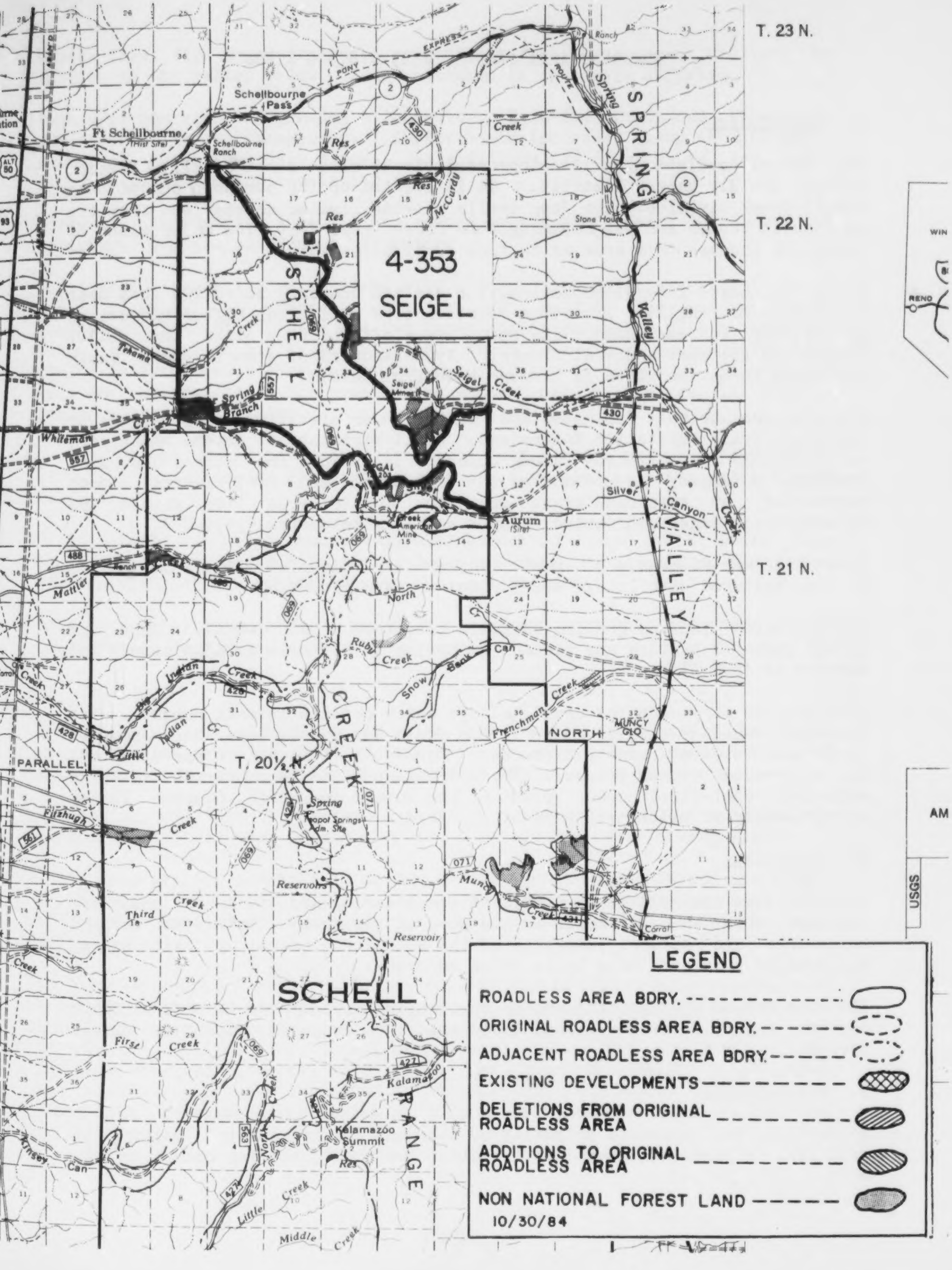
MANAGEMENT PRESCRIPTIONS	FOREST PLAN ALTERNATIVE (ACRES)								
See Table C-2 for complete description)	A	C	D	E	F	H	I	J	K
Current Situation	15158	15158				15158	96901		21043
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H) WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					96901				
All low									
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	81743	81743	81743	81743		81743		96901	60700

TABLE B—IMPACTS ON WILDERNESS CHARACTER

352 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Wilderness integrity and naturalness maintained on 81,743 acres	Same as A	Managment level lower than at present	Same as D	Emphasize the management of commodities other than wilderness	Same as A with management of nonwilderness area at current level.	Wilderness integrity and naturalness are rated high	Wilderness integrity and naturalness may be diminished as mineral exploration continues	Same as H
SOLITUDE	Solitude will remain high	Same as A	Solitude may be reduced due to increased ORV use and mineral activity	Same as D	Same as A	Same as A	Solitude is rated high	Solitude may be reduced	Same as A
PRIMITIVE RECREATION	Primitive recreation will remain high	Same as A	Primitive recreation opportunity will be reduced	Same as D	Same as A	Same as A	Primitive recreation is rated high	Primitive recreation may be reduced	Same as A
CHALLENGING EXPERIENCES	Same as J	Sames As J	Same as I	Same as I	Same as J	Same as J	Isolation and rugged terrain contain varied challenging experiences	Challenging experiences may be limited	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as I	Same as I	Same as J	Same as J	Include Rocky Mtn bighorn sheep, Utah cut throat trout bristlecone pine and archaeological sites.	RNA designation might be necessary to protect specail features	Same as J

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	81,743	81,743	81,743	81,743	0	81,743	0	96,901	60,700
Dispersed Rec	MRVDS	2.65	2.65	2.65	2.65	0	2.65	0	3.14	2.21
NONWILDERNESS	ACRES	15,158	15,158	15,158	15,158	96,901	15,158	96,901	0	21,043
Dispersed Recreation										
Non-Motorized	MRVDS	.04	.04	.04	.04	.30	.04	.24	0	.06
Motorized	MRVDS	.43	.43	.43	.43	2.77	.43	2.77	0	.71
Wildlife Nonstructural Habitat Improv	ACRES	5.58	5.58	5.58	5.58	10.59	5.58	0	6.61	5.58
WL/Fish Use	MWFUDS	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18
Livestock	MAUMS	1.83	1.83	1.72	1.72	2.01	1.83	2.01	1.72	2.01
Fuelwood	MCORDS	0	0	0	0	.01	0	.01	0	0
Xmas Trees	MTREES	0	0	0	0	.004	0	.004	0	0
Sediment Yield	MTONS									
Soil Improvement	ACRES	.09	.09	.09	.09	.16	.09	.05	.1	.09
Minerals	CASES	12.32	12.32	2.17	2.17	13.22	12.32	7.41	13.22	12.32


4-353
SEIGEL
T. 23 N.
T. 22 N.
T. 21 N.
T. 20½ N.
SCHELL
SCHELL CREEK RANGE
SPRING VALLEY
Schellbourne Pass
Ft Schellbourne (Hist Site)
Schellbourne Ranch
Pony Express
Stone House
McCurdy
Res
Seigel Creek
Spring Branch
Whiteman
Tehama
Silver Canyon Creek
Aurum (Site)
American Mine
Mattier
North
Ruby Creek
Snow Bank Can
Indian Creek
Little Indian
Frenchman Creek
NORTH
MUNCY GIO
PARALLEL
Fitzhugh
Spring
Teapot Springs Adm. Site
Reservoirs
Reservoir
Muncy Creek
Third Creek
First Creek
Kalamazoo
Kalamazoo Summit
North Creek
Little Creek
Middle Creek
Kinsey Can
Corral
RENO
WIN
AM
USGS
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA SIEGEL, #353 - 8,849 ACRES

1. Description

The Seigel Roadless Area lies approximately 33 miles north of Ely, Nevada, within the Ely Ranger District. It is located on the northern end of the Schell Creek Division. Two jeep trails provide limited access; one from the northewest corner and one stemming from Forest road #430. The major means of traveling through this area is on foot or by horseback.

Elevation ranges from 6,800 feet at the eastern boundary to 10,203 feet near the south end. Rolling limestone mountain tops typify the higher elevations giving way to mesa-like hills which break off abruptly into the valley floors on the east and west flanks. Appearance is of a north-south basin and range formation which is common in central Nevada.

A pinyon-juniper belt dominates most of the lower elevations with islands of sagebrush/grass vegetation intermixed. Small stringers of aspen, white fir, and mountain brush occur along upper portions of the stream courses. Mountain mahongany is common on the high south and west facing slopes surrounded by sagebrush/grass expanses. This area lies within the Intermountain sagebrush/juniper-pinyon woodland ecosystem (3130-21).

Rock types are Paleozoic sediments and Tertiary volcanics. Soils are medium to fine textured with little accelerated erosion occurring.

Current uses include grazing domestic livestock (5000 AUMs). Deer and upland gamebird hunting and pinenut gathering in the area is also common and amounts to 1000 RVDs.

This area is surrounded by broad valleys which contain several ranches. The Kennecott smelter lies 21 miles to the south and in the past has produced large quantities of industrial smoke. Currently it is not in operation due to suppressed copper prices. There are also plans to construct a large mega-watt coal-fired power plant in the future in north Steptoe Valley approximately 20 miles northwest of this area.

2. Capability

Opportunities for solitude and primitive recreation are low due to the short distance from the perimeter to the core of the area. Both the natural appearance and natural integrity of the area are hindered by past mining exploration scars and have to be rated moderate.

The area has no special features or challenging experiences to offer. There are no known Federally listed threatened or endangered plant or animal species.

3. Availability

Recreation use consists primarily of deer and upland gamebird hunting in addition to pinenut harvestiing. Little fuelwood gathering occurs in the area.

Water from five major drainages originating from the area is utilized by ranches in the valley below. This watershed is in stable conditon.

This area contains two grazing allotments. Both are common-use allotments and under intensive management. Improvements include 4 sheep troughs and 3 miles of Forest boundary fence. An additional 2 1/2 miles of new drift fence is scheduled for completion by 1986.

Commercial Christmas tree cutting occurs approxmately every 10 years with occasional commercial pinenut harvesting.

This area is heavily mineralized with a "high" potential as evident by 5 adjacent mines and prospects which are just outside the roadless area boundary. Presently there are two known silver prospects within the area. Since the area is highly mineralized, there is a stong possibility that mining activity could increase if new deposits are discovered. Silver and lead may be present in the area. The eastern part of the area is heavily staked with mining claims.

Archaeological sites have been discovered just outside the eastern boundary of this area. There is a strong possibility that similar sites exist inside the area.

Recreational use would increase once construction starts on the White Pine Power Project in Steptoe Valley. Smoke and dust emissions from the power plant may impact air quality within the roadless area.

Fire potential is moderate, based on historical records, and there are no known insect or disease problems.

4. Need

The Seigel Roadless Area is 210 miles from the closest heavily populated areas of Salt Lake City Utah or Twin Falls, Idaho. The closest designated wilderness area, Jarbidge, is approximately 125 miles to the north.

Protection of this ecosystem type in a wilderness allocation is not necessary as it is very common throughout Nevada and other nearby states.

This area was not identified for further wilderness study during the RARE I inventory. Public scoping results for the RARE II process indicated non-wilderness management was preferred, and the area was allocated to non-wilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. The analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

A major mining company has expressed interest in the area as a future exploration target.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative. Structural range improvements and harvesting woodland products are part of the management prescription for the area. ORV use will increase some of these activities, in particular, structural range improvements and increased ORV use, will have permanent impacts on the amount of wilderness that will be available for consideration during the next plan revision. The area has not been withdrawn from mineral entry. The area is considered to be highly mineralized having considerable potential for mining developments. In view of the scheduled and unscheduled mining developments none of the area may be available for wilderness consideration during the next plan revision.

TABLE A--ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 353 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES) A	C	D	E	F	H	I	J	K
Current Situation						8849			8849
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); Wl/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	8849	8849	8849	8849	8849		8849		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness								8849	

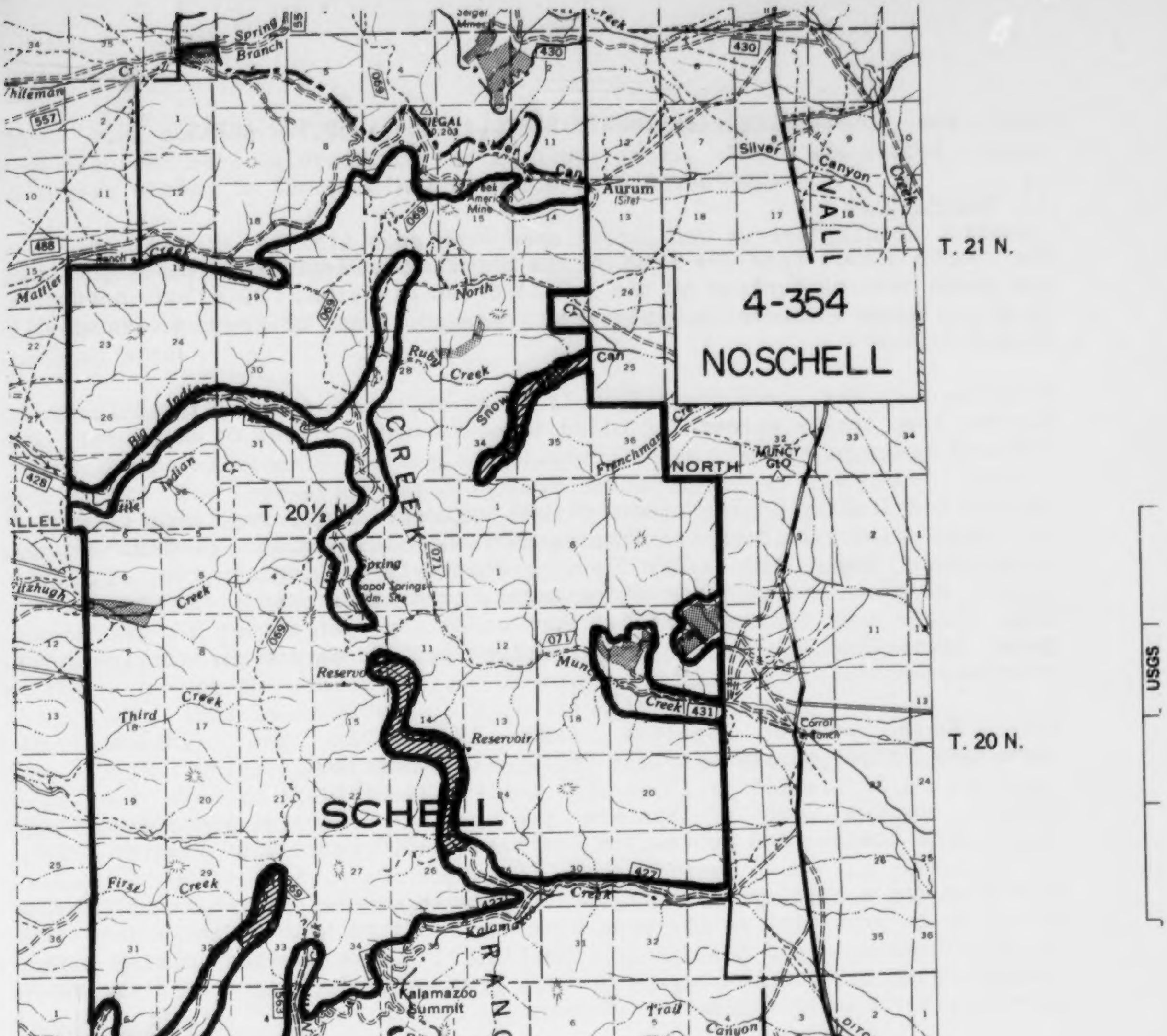
TABLE B—IMPACTS ON WILDERNESS CHARACTER 353 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	——— Same as I ———					Management will remain at present level. Integrity and naturalness may be impact by improvement activity	Management to be moderate due to past mining activity would not be allowed to deteriorate further	Considered emphasis will be toward lower lower outputs than presently produced	Same as H
SOLITUDE	——— Same as I ———						Solitude is low due to small size of area	Increased ORV use may may impact solitude	Same as I
PRIMITIVE RECREATION	——— Same as I ———						Rated low same as solitude	Same as J	Same as J
CHALLENGING EXPERIENCES	——— Same as J ———					No challenging experiences	Same as J	Same as J	
SPECIAL FEATURES	——— Same as J ———					No special features	Same as J	Same as J	

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS

353 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	0	0	0	0	0	0	0	8,894	0
Dispersed Rec	MRVDS	0	0	0	0	0	0	0	.87	0
NONWILDERNESS	ACRES	8,849	8,849	8,849	8,849	8,849	8,849	8,849	0	8,849
Dispersed Recreation										
Non-Motorized	MRVDS	.05	.05	.05	.05	.05	.05	.05	0	.05
Motorized	MRVDS	.77	.77	.77	.77	.77	.77	.77	0	.77
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.41	.41	.41	.41	.41	.41	.41	.42	.41
Livestock	MAUMS	.53	.53	.53	.53	.53	.53	.53	.53	.53
Fuelwood	MCORDS	.02	.02	.02	.02	.02	.02	.02	0	.02
Xmas Trees	MTREES	.04	.04	.04	.04	.04	.04	.04	0	.04
Sediment Yield	MTONS									
Soil Improvement	ACRES	.02	.02	.02	.02	.02	.02	.02	.01	.02
Minerals	CASES	.32	.32	.32	.32	.32	.43	.32	.43	.43


4-354
NO.SCHELL
T. 21 N.
T. 20 N.
T. 20½ N.
SCHELL CREEK RANGE
CREEK
NORTH
USGS
Aurum (Site)
Kalamazoo Summit
Muncy Cr
Third Creek
First Creek
Middle Creek
Little Creek
Meadow Creek
Trail Canyon
East Creek
Pipeline
Bird Creek
Snake Canyon
Duck Creek Dam
Paine Spr
Silver Canyon Creek
Ruby Creek
Big Indian Cr
Frenchman Cr
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA NORTH SCHELL, #354 - 50,702 ACRES

1. Description

The North Schell Roadless Area on the Ely Ranger District is located within the north central portion of the Schell Creek Division, 22 miles northeast of Ely, Nevada. Visually, this area forms an island of green surrounded by desert valleys.

Portions of the area are extremely rough and steep with limited access. Several jeep trails extend 1-2 miles into its core. Foot or horseback are the main modes of travel.

Streams originating at the heads of most major drainages have made deep cuts in large limestone deposits forming narrow, steep-walled canyons rising immediately above the valley floor. White fir, Douglas fir, Engleman spruce, mountain mahogany, quaking aspen, and limber pine are common along upper ridges and drainage heads surrounded by open slopes of sagebrush/grass communities. Pinyon pine, juniper and Ponderosa pine dominate the lower elevations.

The North Schell Roadless Area is within the Intermountain sagebrush/juniper-pinyon woodland (#3103-12) ecosystem.

Primary current uses of this area are grazing domestic livestock (3943 Animal Unit Months) and recreation (estimated 1800 Recreation Visitor Days).

This area has a history of mining activity with several mining camps located within or in proximity to the area boundary. It is highly mineralized with known silver and lead deposits. The historic Greek American mining camp, located just outside the area boundary, has attracted sightseers who reach this camp by vehicle via Mattier Creek.

Rock types include Paleozoic sediments and Tertiary volcanics.

Air pollution from the Kennecott smelter 10 miles to the south has had a noticeable impact on the air quality in this area. The smelter is presently shut down due to high operating costs and low copper prices.

2. Capability

Lack of control over potential emissions from the Kennecott smelter or from a proposed coal-fired power plant in north Steptoe Valley could affect the natural integrity of this roadless area. Currently, the natural integrity is rated high while the natural appearance is moderate because of numerous prospect pits throughout the area.

Only moderate opportunities exist for solitude and primitive recreation due to numerous cherry-stemmed roads. A few cliffs are present for a challenging experience.

Three road corridors (Kinsey Creek, North Fork Kalamazoo Creek, and Snow Bank Canyon) were deleted from the roadless area. These are bladed roads that were missed in the original roadless area inventory.

Lower elevations of this area have been identified as traditional pinenut gathering grounds by the Nevada Tribal Council.

No Federally threatened or endangered plant or animal species exist in this roadless area.

3. Availability

Three sheep allotments and one common-use allotment are contained in the area. All but one are managed through Forest approved management plans. Existing range improvements consist of five sheep troughs, six ponds, and one and one-half miles of fence. Three miles of division fence and one sheep trough are planned for construction by 1987. The range is mostly in good condition. No vegetation type conversions are planned.

Deer and upland game bird hunting, trapping, pinenut gathering, and some hiking, horseback riding, and fishing are the favored recreational activities. This is considered a high value hunting area.

Faun Trail, until recent years, had been heavily used by ORV enthusiasts. Severe soil erosion resulted in closing this trail to ORV's. This is a high watershed value area.

Commercial Christmas tree cutting areas are scattered along the periphery of the area. Fuelwood gathering and post and pole cutting also occur.

The area has high potential for the development of economic mineral deposits. There are approximately 100 mining claims within the area. Mining activity could increase if there is a strong demand for silver, lead, and other mineral deposits.

Some evidence of early man had been discovered in the area. Heavy annual summer lightening occurrence gives the area a high fire potential. There are no known insect or disease problems associated with the North Schell Roadless Area.

Fitzhugh and Ruby Creek have private lands, containing structures.

4. Need

The North Schell Roadless Area is 145 miles from the nearest wilderness, Jarbidge, and 210 miles from the nearest heavy population center.

Protection of this area to preserve the Intermountain sagebrush/juniper-pinyon woodland ecosystem type is not necessary as it is common throughout central and southern Nevada.

This area was originally identified as roadless in the 1973 RARE I inventory.

Public scoping results from the RARE II process indicated local sentiment is opposed to wilderness classification. Nonlocals favor wilderness designation. It was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Several major mining companies have an interest in the area for exploration purposes.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative. Structural range improvements and harvesting woodland products are part of the management prescription for the area. ORV use will also increase. Some of these activities, in particular, structural range improvements and increased ORV use, will have permanent impacts on the amount of wilderness that will be available for consideration during the next plan revision. The area has not been withdrawn from mineral entry. The area is highly mineralized having a high potential for mineral development. In view of the scheduled and unscheduled mining activities certain sections of the roadless area may not be available for consideration during the next plan revision. The number of cherry-stemmed roads within the roadless area may reduce the amount of land available for future wilderness consideration. If some of the cherry-stemmed roads are connected, the roadless area may be dissected into numerous smaller areas, none of which would be large enough to be considered as future wilderness.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

354 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						49,819			49,819
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/Wl/NMDisp/Mins (H)									
S&W/Wl/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	49,819	49,819	49,819	49,819	49,819		49,819		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness								49,819	

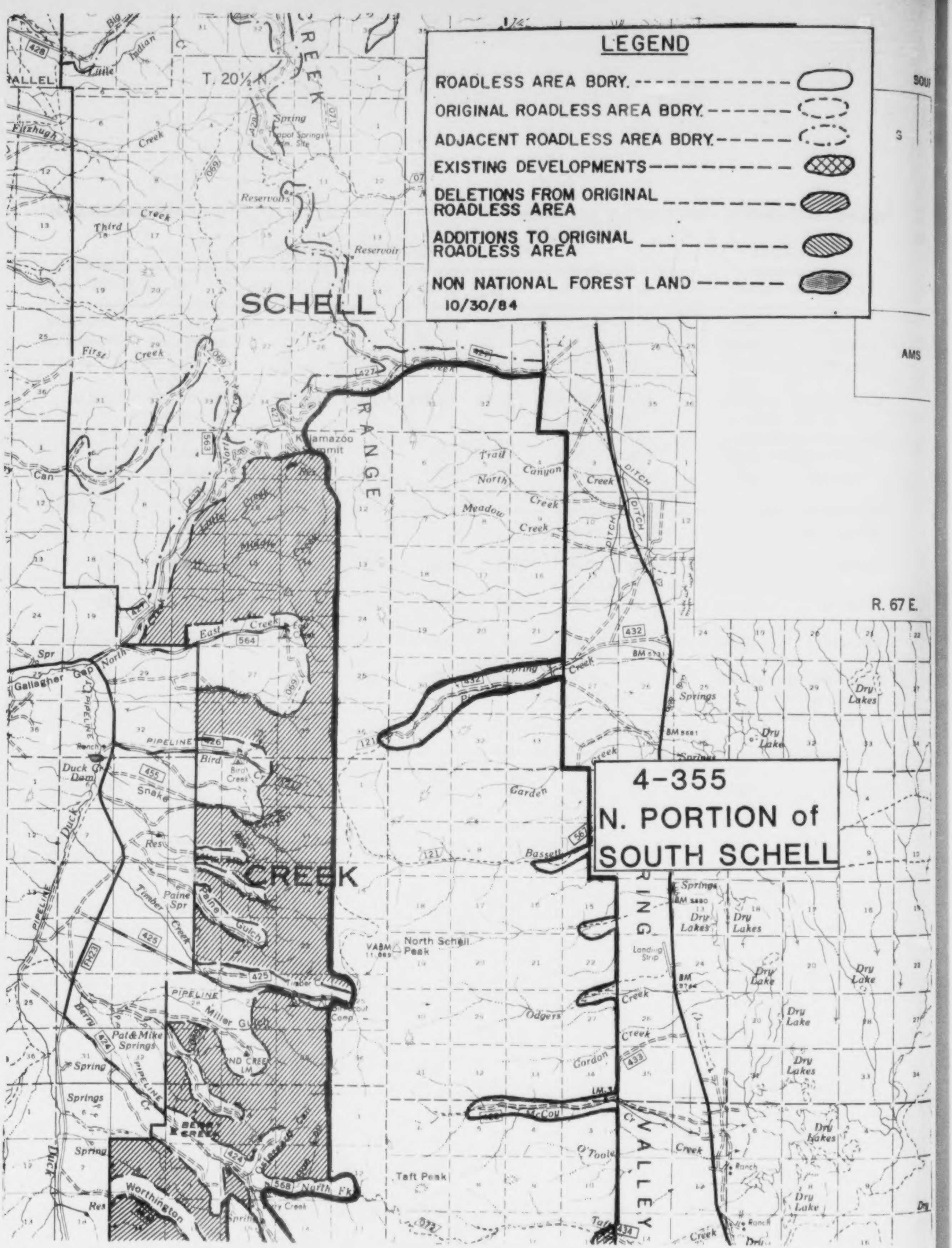
TABLE B—IMPACTS ON WILDERNESS CHARACTER

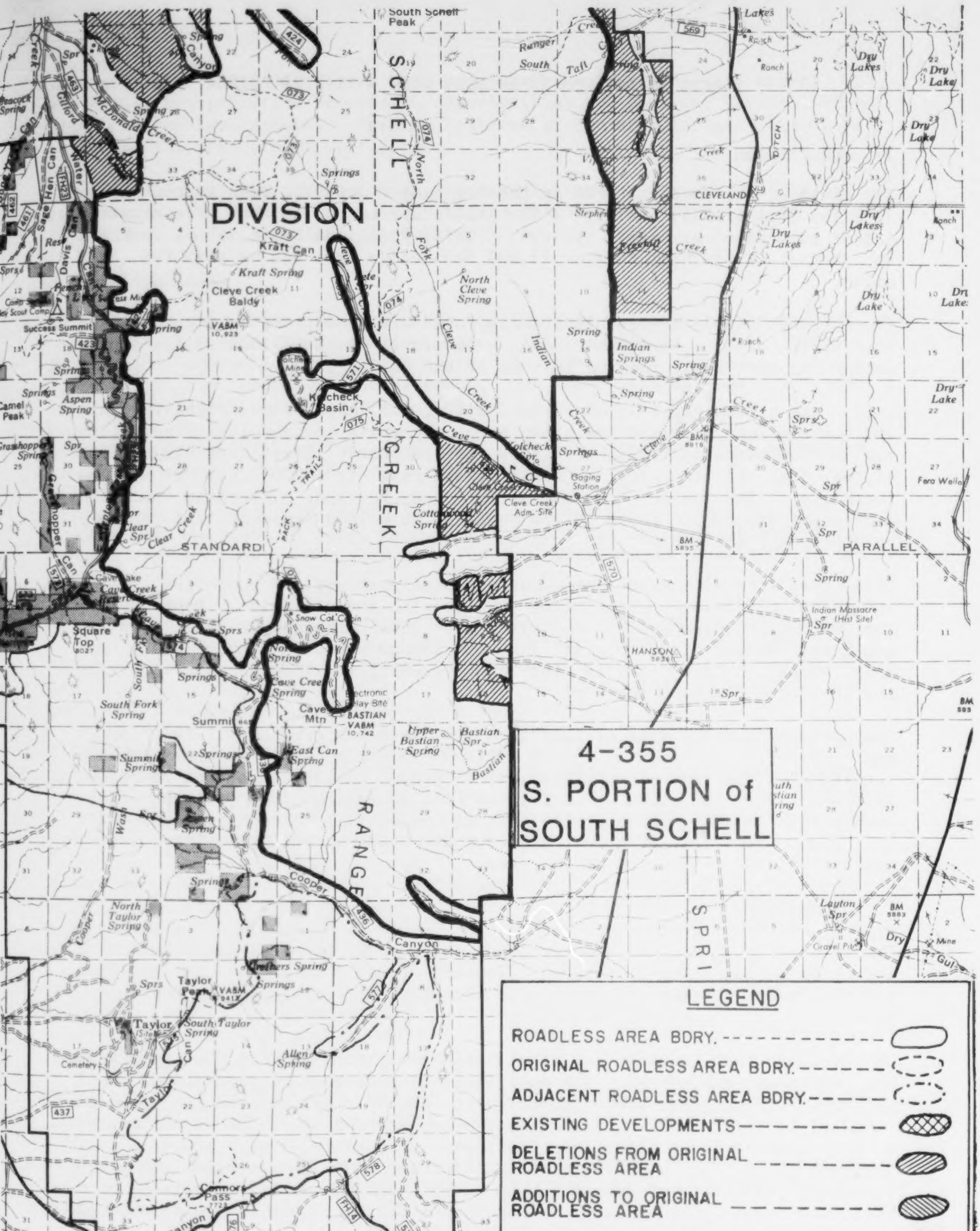
354 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will be at a lower level than present integrity and naturalness would remain the same	Same as A	Same as A	Same as A	Same as A	Management would remain at present level integrity and naturalness would remain the same	Same as A	Wilderness integrity was rated high. Naturalness is moderate due to numerous prospect pits	Same as H
SOLITUDE	Same as H					Solitude may be impacted by future mineral developments	Same as H	Solitude is moderate due to numerous cherry-stemmed roads	Same as H
PRIMITIVE RECREATION	Same as H					Primitive recreation may be impacted by future mineral developments	Same as H	Primitive recreation is impacted by the Cherry stemmed roads	Same as H
CHALLENGING EXPERIENCES	Same as J							Some challenging experiences	Same as J
SPECIAL FEATURES	Same as J							None have been identified	Same as J

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 354 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	0	0	0	0	0	0	0	49,819	0
Dispersed Rec.	MRVDS	0	0	0	0	0	0	0	5.00	0
NONWILDERNESS	ACRES	49,819	49,819	49,819	49,819	49,819	49,819	49,819	0	49,819
Dispersed Recreation										
Non-Motorized	MRVDS	.29	.29	.29	.29	.29	.29	.29	0	.29
Motorized	MRVDS	4.43	4.43	4.43	4.43	4.43	4.43	4.43	0	4.43
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	2.36	2.36	2.36	2.36	2.36	2.37	2.36	2.40	2.37
Livestock	MAUMS	3.04	3.04	3.04	3.04	3.04	3.03	3.04	3.04	3.03
Fuelwood	MCORDS	.09	.09	.09	.09	.09	.09	.09	0	.09
Xmas Trees	MTREES	.22	.22	.22	.22	.22	.22	.22	0	.22
Sediment Yield	MTONS									
Soil Improvement	ACRES	.11	.11	.11	.11	.11	.11	.11	.08	.11
Minerals	CASES	1.81	1.81	1.81	1.81	1.81	2.44	1.81	2.44	2.44


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-355
N. PORTION of
SOUTH SCHELL
SCHELL
CREEK
RANGE
T. 20½ N.
R. 67 E.
Kalamazoo Summit
North Schell Peak
Taft Peak
Gallagher Gap
Duck Cr Dam
Pat & Mike Springs
Miller Gulch
Paine Gulch
Timber Creek
Bird Creek
East Creek
Berry Creek
Worthington
Garden
Bassett
Odgers Creek
Gordon Creek
McCoy Creek
O'Toole
Dry Lakes
Dry Lake
Landing Strip
PIPELINE
DITCH
VALLEY
Teapot Springs Fdm. Site
Reservoir
Third Creek
First Creek
Fitzhugh
Little Indian C.
Big
Trail Canyon Creek
North Meadow Creek
Spring Creek


4-355
S. PORTION of
SOUTH SCHELL
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
DIVISION
SCHELL CREEK RANGE
South Schell Peak
Cleve Creek Baldy
CLEVELAND
STANDARD
PARALLEL
Kraft Can
Kraft Spring
North Cleve Spring
Success Summit
Indian Springs
Cleve Creek Adm. Site
Gaging Station
Cottonwood Spring
Square Top
Cave Creek
Cave Mtn
BASTIAN VABM 10,742
Upper Bastian Spring
East Can Spring
Summit Spring
South Fork Spring
HANSON
Indian Massacre (Hist Site)
Cooper Canyon
North Taylor Spring
Taylor Peak
Taylor (Site)
South Taylor Spring
Allen Spring
Connors Pass 7723
Connors Canyon
Microwave Tower
Majors
Dry Lakes
Layton Spr
Gravel Pit
Mine
SPRI

ROADLESS AREA SOUTH SCHELL, #355 - 111,029 ACRES

1. Description

The South Schell Roadless Area on the Ely Ranger District lies approximately 10 miles east of Ely, Nevada. The unit's appearance is that of a mountain island surrounded by desert valleys. Taft, North and South Schell Peaks in the center of the unit form an 11,000 foot ridge that can be seen for many miles.

The area is easily accessible from improved dirt roads and campgrounds on the north, south, and west sides. Access on the east side is limited to unimproved dirt roads located in some of the drainages.

High, steep topography is characteristic of this area with limited foothill and meadow land. Peaks are steep and rocky while the mountain slope land varies from benchland to sheer cliffs and rim rock. Elevations range from 11,883 feet at the top of North Schell Peak to 6000 feet along the foothills. The soils are basically sandy to sandy clay loam and are moderately erosive. Rocks in the area are Paleozoic sediments and Tertiary volcanics and sediments.

This area lies within the Intermountain sagebrush/western ponderosa forest ecosystem (3130-10). Vegetation varies with the elevation. Pinyon pine, juniper and Ponderosa pine dominate the lower slopes. Aspen, mountain mahogany, white fir, Douglas fir, Engleman spruce, limber pine, and bristlecone pine are found in the upper elevations. Sagebrush-grass types are located throughout the area.

The primary current uses of this area are livestock grazing (7,142 AUM's) and recreation (estimated 3,500 RVD's). Big game and upland gamebird hunting are important attractions in this area. A portion of the municipal watershed for the town of McGill is located along the western slope. Twenty-five thousand acres of the unit are potentially mineralized and there are known deposits of gold, silver, and copper. Oil and gas leases presently cover 2498 acres of the area.

2. Capability

The natural integrity and appearance of the area is rated as high because of the area's undeveloped nature. Impacts of man that cannot be excluded include areas of vegetative manipulation and the presence of nonindigenous plants.

The roadless area boundary was significantly modified on both the northwest and southeast quadrants. The modifications were made as a result of input gathered during the public involvement phase. An alternative western boundary is shown that would eliminate existing road intrusions and provide a more manageable boundary for wilderness. The entire area, however, has been evaluated for wilderness designation under one alternative. The road corridor just north of Cooper Canyon was omitted due to its importance as a Christmas tree cutting area. Odgers and Bassett Canyons contain bladed roads that were missed during the original inventory.

Opportunities for solitude are only moderate because of the easy access to the area, but primitive recreation opportunities are high due to its large size and roadless nature. Special features in the area include limestone caves and the presence of an elk herd.

No Federally listed threatened or endangered plant or animal species are known to occur in the area. A peregrine falcon was sighted in the late 1970's, but no further sightings have occurred.

3. Availability

Recreation use is primarily limited to big game and upland gamebird hunting. There is also some hiking and four-wheel drive activity. Cross-country skiing and snowmobiling is increasing in the area. There is little opportunity for campground development, but the potential for increased dispersed recreational activity is high.

Overall watershed value is high with little potential for watershed improvement due to the high cost per benefit gained.

This area is primarily grazed by domestic sheep with forage production generally good. Several range improvement fences and water developments are located in the area. The potential for type conversions is low due to the rugged terrain.

The area contains several commercial Christmas tree cutting areas and pinenut gathering areas along the east boundary from Cooper Canyon to Kalamazoo Road. Cutting of juniper posts, aspen poles, and fuelwood occurs periodically throughout the unit. There are opportunities to maintain and possibly increase these activities to a small extent.

The west part of the area is rated high and the eastern, high mountains are rated moderate in potential for base and precious metals. Lead, silver, copper, and zinc occur in the area. Due to the high mineralization there is a potential for an increase in mining activity. There are three mining districts in the area and a scattering of mining claims.

Archaeological sites including petroglyphs and lithic scatters occur in the area. In 1982, a cave was discovered that contained the remains of a cave bear between 10,000 and 12,000 years old. Additional archaeological and paleological sites probably occur.

Present air quality is high although the Kennecott Copper Corporation smelter at McGill (6 miles west of this area) has in the past been a source of heavy industrial smoke, dust, and fumes. The smelter is currently inactive.

The majority of the area is National Forest land with 120 acres of private land located in the south end of the unit.

Fire potential is high in this area because of annual severe lightening occurence, although no major fires have occurred recently. Insects and disease are not a problem.

4. Need

The South Schell roadless area lies approximately 10 miles east of Ely, Nevada. The nearest existing wilderness area, Jarbidge, lies approximately 160 miles north of the roadless area.

The Intermountain sagebrush/western ponderosa forest ecosystme is common throughout Nevada, thus wilderness classification of the South Schell roadless area to protect this vegetation type is not needed.

This area was originally inventoried in RARE I but not identified for further wilderness study at that time. During the RARE II process, local public sentiment favored non-wilderness classification. Non-local public sentiment favored wilderness classification. The area was recommended for non-wilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitude and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Several major companies have expressed an interest in the area as an exploration target.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative due to the high mineral potential inherent in the area.

Structural and non-structural range improvements, as well as harvesting wood products, are part of the scheduled management prescribed for the area. ORV use will also increase. The area has not been withdrawn from mineral entry. The west side of the area is rated high, while the eastern half is rated moderate, in terms of prospective potential for base and precious metals. Structural range improvements, increased ORV use, and unscheduled mining developments may reduce the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

355 ROADLESS AREA

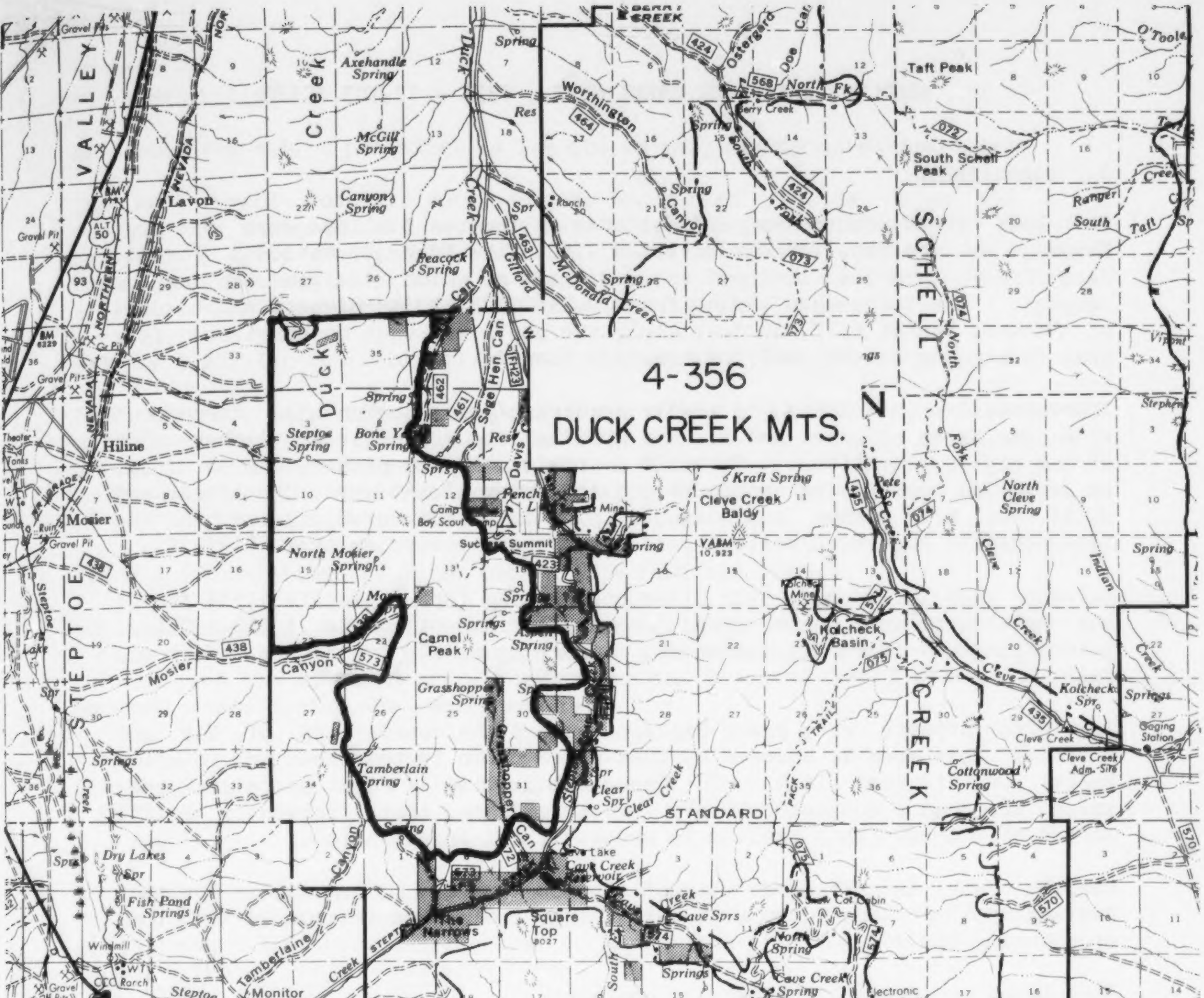
MANAGEMENT PRESCRIPTIONS See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						133706			110581
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	22677	22677	133706	133706	133706		133706		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	111029	111029						133706	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 355 ROADLESS AREA

<table>
<tr><th rowspan="2">WILDERNESS CHARACTERISTICS</th><th colspan="9">FOREST PLAN ALTERNATIVE</th></tr>
<tr><th>A</th><th>C</th><th>D</th><th>E</th><th>F</th><th>H</th><th>I</th><th>J</th><th>K</th></tr>
<tr><td>INTEGRITY/ NATURALNESS</td><td>Integrity & naturalness wil be maintained on 111,029 acres. 22,674 acres will be managed at a low level. This area may be impacted by increased mining.</td><td>Same as A</td><td>Management will be at a level lower than present. Area may be impacted by increased mining.</td><td>Same as D</td><td>Same as D</td><td>Management will be maintained at present levels. Integrity & naturalness will remain the same.</td><td>Same as D</td><td>Integrity & naturalness are rated high due to area's undeveloped nature.</td><td>Same as H</td></tr>
<tr><td>SOLITUDE</td><td>Solitude will remain constant on area recommended as wilderness. It will be reduced on area not recommended.</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as H</td><td>Solitude will be impacted due to increasing mineral exploration.</td><td>Same as H</td><td>Solitude is moderate due to easy access to area.</td><td>Same as H</td></tr>
<tr><td>PRIMITIVE RECREATION</td><td>Primitive recreation same as solitude.</td><td>Same as A</td><td>Same as H</td><td>Same as H</td><td>Same as H</td><td>Primitive recreation same as solitude.</td><td>Same as H</td><td>Primitive recreation is high due to area's large size.</td><td>Same as H</td></tr>
<tr><td>CHALLENGING EXPERIENCES</td><td colspan="7">Same as J</td><td>Challenging experiences are considered good.</td><td>Same as H</td></tr>
<tr><td>SPECIAL FEATURES</td><td colspan="5">Same as J</td><td>No impacts on elk. Some special area may be required for the caves.</td><td>Same as J</td><td>Include limestone caves & elk. Winter range improvement options may be lost for the elk.</td><td>Same as H</td></tr>
</table>

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 355 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	111,029	111,029	0	0	0	0	0	133,706	0
Dispersed Rec	MRVDS	10.90	10.90	0	0	0	0	0	13.14	0
NONWILDERNESS	ACRES	22,677	22,677	133,706	133,706	133,706	133,706	133,706	0	133,706
Dispersed Recreation										
Non-Motorized	MRVDS	.13	.13	.76	.76	.76	.76	.76	0	.76
Motorized	MRVDS	1.97	1.97	11.64	11.64	11.64	11.64	11.64	0	11.64
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	6.28	6.28	6.21	6.21	6.21	6.22	6.21	6.30	6.22
Livestock	MAUMS	7.99	7.99	7.99	7.99	7.99	7.98	7.99	7.99	7.98
Fuelwood	MCORDS	.04	.04	.23	.23	.23	.23	.23	0	.23
Xmas Trees	MTREES	.10	.10	.58	.58	.58	.58	.58	0	.58
Sediment Yield	MTONS									
Soil Improvement	ACRES	.23	.23	.28	.28	.28	.28	.28	.22	.28
Minerals	CASES	6.13	6.13	4.77	4.77	4.77	6.41	4.77	6.41	6.41


4-356
DUCK CREEK MTS.
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
STEPTOE VALLEY
Duck Creek
Schell Creek
Axehandle Spring
McGill Spring
Canyon Spring
Peacock Spring
Lavon
Hiline
Mosier
North Mosier Spring
Steptoe Spring
Bone Yard Spring
Camel Peak
Grasshopper Spring
Tamberlain Spring
Sage Hen Can
Sucker Summit
Boy Scout Camp
Kraft Spring
Cleve Creek Baldy
VABM 10,923
Kolcheck Mine
Kolcheck Basin
Taft Peak
South Schell Peak
North Cleve Spring
Cleve Creek Adm. Site
Gaging Station
Kolcheck Spr
Cottonwood Spring
Clear Creek
STANDARD
Cave Lake
Cave Creek Reservoir
Square Top 8027
The Narrows
Cave Sprs
North Spring
Cave Creek Spring
Electronic Relay Site
Cave Mtn
BASTIAN VABM 10,742
Upper Bastian Spring
Bastian Spr
East Can Spring
Summit Spring
South Fork Spring
Aspen Spring
North Taylor Spring
Dry Lakes
Fish Pond Springs
Monitor Field
Monitor Mill (Site)
Comins Lake
Tamberlaine Creek
Steptoe Creek
Gravel Pit
Cemetery
Windmill
NEVADA NORTHERN
50
93
6
FH23
SIGN

ROADLESS AREA DUCK CREEK MTNS., #356 - 12,703 ACRES

1. Description

The Duck Creek Mountains roadless area is located 5 miles east of Ely, Nevada, on the Schell Creek Division within the Humboldt National Forest. Jeep trails provide limited access, most of which dead-end in narrow canyons. The topography varies from 10,238 feet at its highest point west of Success Summit to 7,300 feet along the north and west boundaries. This area is largely smooth, rolling mountain terrain.

Representative vegetation is mostly sagebrush/grass communities throughout with stringers of aspen and willows grading into white fir and limber pine at the higher elevations. Sizeable mountain mahogany patches can be found on south and west facing slopes at mid and upper elevations. Cheatgrass and white top are common nonindigenous plants. This area is within the Intermountain sagebrush/western ponderosa forest ecosystem type (3130-10).

Current uses include domestic livestock grazing (approximately 1,213 AUM's) and motorized and nonmotorized recreation amounting to 1,200 RVD's. Recreation use is mostly dispersed, occurring mainly during the summer and fall.

The area appears as a green backdrop behind the communities of Ely and McGill. This area is bounded by Duck Creek Basin to the north and Steptoe Valley on its west flank. The Kennecott Smelter is eight air miles away which produces a noticeable heavy industrial smoke that frequently drifts across this area. This smelter is presently not in operation.

Healthy deer and elk herds attract numerous hunters making this a popular hunting spot for locals and nonlocals alike. Elk were introduced into this area during the 1930's.

Rock types are primarily Paleozoic sediments.

There are no real scenic landmarks; however, the Success Loop, along the south and eastern boundary, provides a popular local scenic drive. Summer homes and Camp Success Boy Scout Camp adjacent to the area also attract recreationists.

2. Capability

The natural integrity of the area is rated moderate because of the expansive communities of nonindigenous plants. The apparent naturalness would be rated slightly higher but could not be rated as high because of numerous prospect holes and range improvements in some portions.

Opportunities for solitude and primitive recreation are low due to little topographic and vegetation screening and the area's small size. There are no known challenging experiences or Federally listed threatened or endangered plant species.

3. Availability

Developed recreation potential is low due to many nearby developed sites.

The Duck Creek Mountain roadless area has a high grazing value and is intensively managed. It contains parts of three grazing allotments which include 4 sheep troughs and 2 1/2 miles of Forest boundary fence. Additional fencing is planned in the future. There is some potential for vegetative manipulation between Boneyard and Sagehen Creeks.

This is a popular fuelwood and individual Christmas tree gathering area.

Sand, gravel, fire clay, manganese, lead, silver, and some gold are sought after minerals within and adjacent to the area. It has a "high" prospective potential for minerals and oil and gas. There are numerous prospect holes and dumps along the west face which are apparent to most visitors. The area is heavily staked with mining claims.

There are indications of early man in this roadless area.

Success Loop is a popular scenic drive bounding the area on the east beckoning locals to view the scenery and a chance to spot elk or deer. Camp Success and the summer homes along Sagehen and Boneyard Creeks attract many recreationists during the summer and fall.

Based on historical record, the fire potential is only moderate and there are no known insect or disease problems in this area.

4. Need

The Duck Creek Mountain roadless area is approximately 245 miles from the nearest heavily populated area and approximately 160 miles from the nearest wilderness. The nearest wilderness currently receives light use due to its distance from a heavy populace center.

There is little need to protect this area to preserve the Intermountain sagebrush/western ponderosa forest ecosystem type as it is common in Nevada.

During RARE II, there was overwhelming support from both local and nonlocal people for nonwilderness management. The area was subsequently allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contact, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Several companies and individuals are currently conducting exploration programs in the area.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative.

Structural and non-structural range improvements, as well as harvesting wood products, are part of the scheduled management prescribed for the area. ORV use will also increase. The area has not been withdrawn from mineral entry. The area has a high potential for minerals, both oil and gas and locatibles. Structural range improvements, increased ORV use and unscheduled mining developments may reduce the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

356 ROADLESS AREA

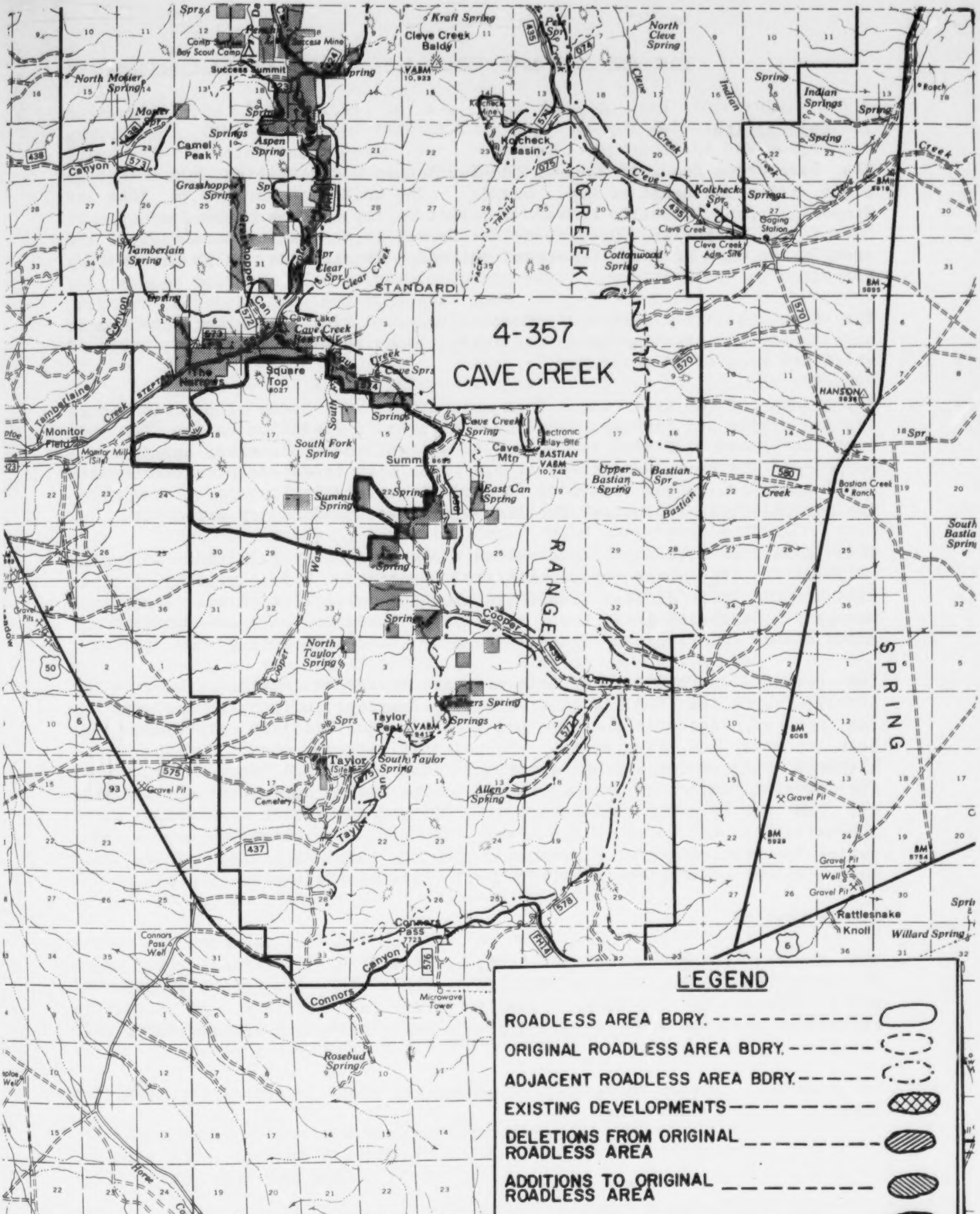
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						12703			12703
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H) WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low		12703	12703	12703	12703		12703		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	12703							12703	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 356 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be lower than present level. Increased mining activity may impact integrity & naturalness.	Same as C	Same as C	Same as C	Management will continue at present level. Increased mining activity & resource improvement projects may impact integrity & naturalness.	Same as C	Integrity is rated as moderate due to nonindigenous plants. Naturalness is also moderate due to the past mining activity.	Same as H
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is considered low due to area's small size & lack of vegetation screening.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None known to exist.	Same as J
SPECIAL FEATURES	Same as J	Elk are present. Habitat improvement projects will be lost due to low level management.	Same as C	Same as C	Same as C	Elk habitat will be improved via additional projects.	Same as C	Elk are present. Some habitat improvement opportunity will be lost.	Same as H

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 356 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	12,703	0	0	0	0	0	0	12,703	0
Dispersed Rec	MRVDS	1.25	0	0	0	0	0	0	1.25	0
NONWILDERNESS	ACRES	0	12,703	12,703	12,703	12,703	12,703	12,703	0	12,703
Dispersed Recreation										
Non-Motorized	MRVDS	0	.07	.07	.07	.07	.07	.07	0	.07
Motorized	MRVDS	0	1.11	1.11	1.11	1.11	1.11	1.11	0	1.11
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.60	.59	.59	.59	.59	.59	.59	.60	.59
Livestock	MAUMS	.76	.76	.76	.76	.76	.76	.76	.76	.76
Fuelwood	MCORDS	0	.02	.02	.02	.02	.02	.02	0	.02
Xmas Trees	MTREES	0	.06	.06	.06	.06	.06	.06	0	.06
Sediment Yield	MTONS									
Soil Improvement	ACRES	.02	.03	.03	.03	.03	.03	.03	.02	.03
Minerals	CASES	.61	.45	.45	.45	.45	.61	.45	.61	.61


4-357
CAVE CREEK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
CREEK
RANGE
SPRING
STANDARD
Cleve Creek Baldy
Success Summit
Camel Peak
Grasshopper Spring
Tamberlain Spring
Cave Lake
Cave Creek Reservoir
Square Top
South Fork Spring
Cave Mtn
Electronic Relay Site
Kolcheck Basin
Cleve Creek Adm. Site
Cottonwood Spring
Upper Bastian Spring
Bastian Spr
HANSON
Bastian Creek Ranch
Monitor Field
North Taylor Spring
Taylor Peak
Taylor (Site)
South Taylor Spring
Allen Spring
Cooper Canyon
Connors Pass
Connors Canyon
Microwave Tower
Rosebud Spring
Rattlesnake Knoll
Willard Spring
Gravel Pit

ROADLESS AREA CAVE CREEK, #357 - 7,100 ACRES

1. Description

The Cave Creek Roadless Area on the Ely Ranger District lies approximately eight miles southeast of Ely, Nevada. The unit's appearance is that of pinyon-juniper foothills between a desert valley and the higher mountains. Square Top is a flat-topped mesa-like formation on the northern side of the area that can be seen for several miles. It is the only distinctive formation in the unit.

The area is easily accessible from an improved dirt road along its north side. Access in other areas is limited to unimproved dirt roads most of which are located in drainages.

Topography of the area ranges from moderate to very steep slopes with some exposed cliffs and rimrock along the drainages. Elevation ranges from 6000 feet to almost 9000 feet at the top of some of the peaks along the eastern boundary. The soils are generally clay loam with limestone parent material. Soil condition ranges from poor to good with a stable trend. Rock types include Paleozoic sediments, Tertiary sediments and Tertiary volcanics.

This area lies within the Intermountain sagebrush/pinyon-juniper ecosystem (3130-21). Vegetation varies with the elevation. Pinyon pine and juniper dominate the lower slopes. There are also some extensive stands of mountain mahogany. Sagebrush-grass types are located throughout the area while small aspen stands and riparian vegetation can be found surrounding some springs.

The primary current uses of this area are livestock grazing (sheep - 171 AUM's), recreation (800 RVD's), fuelwood gathering, and mineral exploration. The elk population in the area provides a unique wildlife experience for both hunters and sightseers. No perennial streams occur in the area, although Steptoe Creek is an important fisheries as well as a water source for several ranches in Steptoe Valley. The entire unit contains possible oil and gas or geothermal reserves. Oil and gas leases presently cover approximately 640 acres of the area. The USGS also gives the area a high rating for exploration of stratabound precious metal deposits. There is an active silver mine approximately two miles south of the area.

2. Capability

The natural integrity and appearance of the area are rated as very low. Nonindigenous plants, visible powerlines, and vehicle tracks are evidence of man's impacts in the area. Opportunities for solitude and primitive recreation are both low due to the area's small size. A special feature in the area is the elk herd.

No Federally listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

Recreation use is limited to big game hunting and four-wheel drive activities. Elk hunting and viewing is a major unique activity in the area. There is little opportunity for campground development although the potential for increased dispersed recreation is high.

The area provides key big game habitat. Elk use occurs during the winter in the lower elevation pinyon-juniper and mountain mahogany. Elk and mule deer use the higher elevation sagebrush-grass types and mountain mahogany during the summer months. The aspen stands and small riparian areas also provide critical habitat for numerous game and nongame species. The present undeveloped nature of this area could become critical to elk in the future if human activities and developments continue to grow in adjacent areas.

There is little potential for watershed improvement due to the high cost per benefit gained.

The area is currently grazed by domestic sheep. Forage production is poor on the lower pinyon-juniper dominated slopes and fair to good in the higher elevation sagebrush-grass types because of increased precipitation. Sheep use is limited due to the lack of perennial water in the west half of the area. There presently are no structural range improvements in the area although the National Forest boundary fence runs along the unit's west side. Small remnant crested wheatgrass seedings can be found in a few of the drainages. The potential for greater livestock use in the area is high with the development of reliable water sources.

Timber products removed from the unit include fuelwood, pinenuts, and juniper posts. These activities are generally concentrated in the west half of the unit. There are opportunities to maintain and possibly increase these activities in the future.

The area is rated as high in prospective potential for base and precious metals. This, as well as the present active silver mine south of the area, would indicate a potential for an increase in mining activity. There are approximately 80 mining claims within the unit.

Archaeological sites such as lithic scatters have been documented near the unit. Additional sites probably exist within the unit.

Present air quality is high although Kennecott Copper Corporation smelter at McGill (16 miles north of this area) has in the past been a source of some industrial smoke, dust, and fumes. The smelter is presently closed.

Fire potential is high in this area, although no major fires have occurred recently. Insects and disease are not a problem.

4. Need

The Cave Creek roadless area lies approximately 8 miles southeast of Ely, Nevada. The nearest existing wilderness area lies approximately 168 miles north of the roadless area.

The Intermountain sagebrush/pinyon-juniper ecosystem is common throughout Nevada, thus wilderness classification of the Cave Creek roadless area to protect this vegetation type is not needed.

During the RARE II process, both local and nonlocal public input favored nonwilderness classification. The area was allocated to nonwilderness management.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished at each Ranger's and Supervisor's Office and through mailout request. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Two major companies have expressed an interest in the area as a further target for minerals exploration.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative.

Structural and non-structural range improvements, as well as harvesting wood products, are part of the scheduled management prescribed for the area. ORV use will also increase. The area has not been withdrawn from mineral entry. The area is considered to have high potential for minerals for both locatibles and leasibles. Structural range improvements, increased ORV use and unscheduled mining developments may reduce the amount of wilderness available for future consideration. The small size of the area aggravates this problem.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 357 ROADLESS AREA

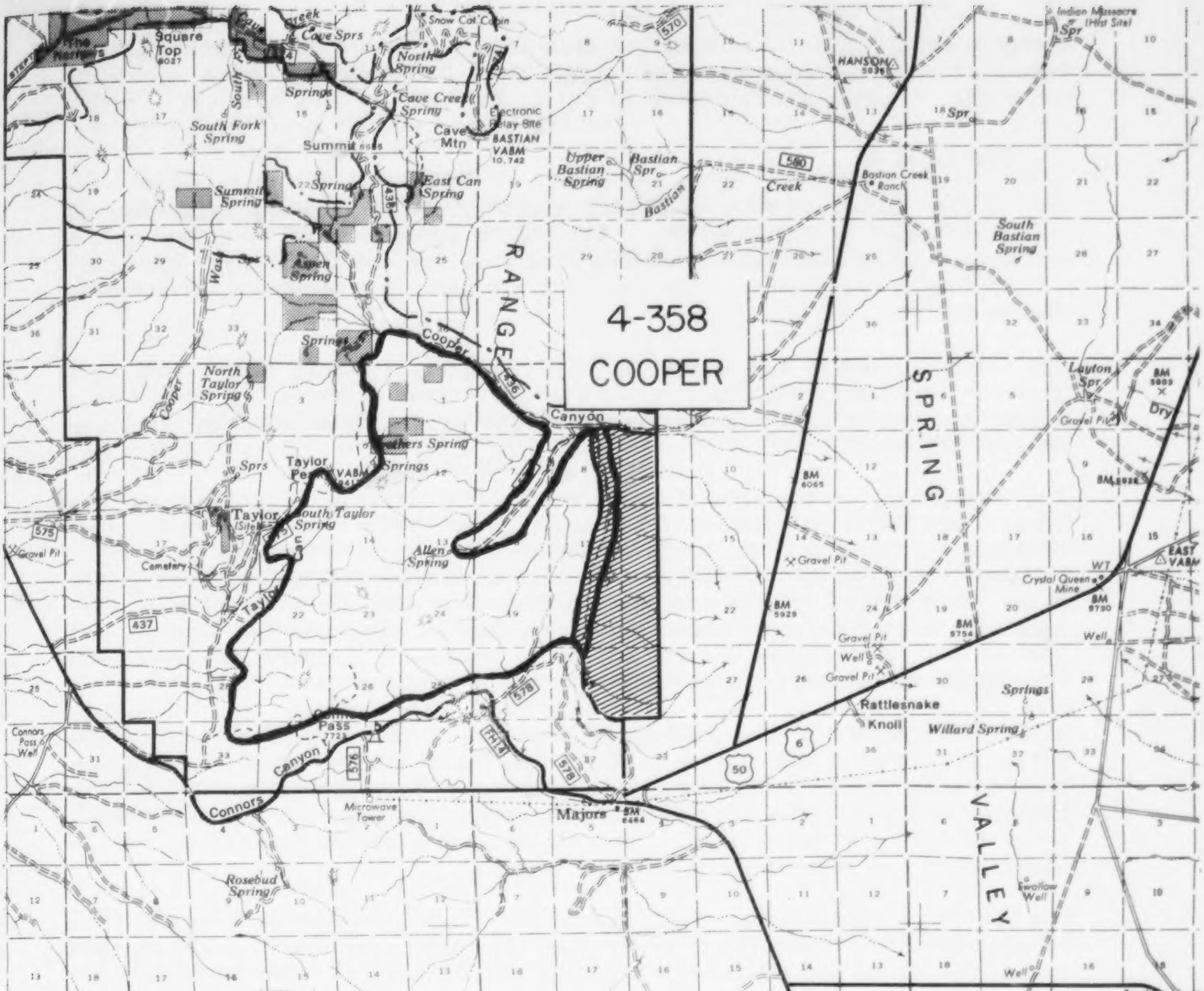
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						7220			7220
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/Wl/NMDisp/Min (H)									
S&W/Wl/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low		7220	7220	7220	7220		7220		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	7220							7220	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 357 ROADLESS AREA

<table>
<tr><th rowspan="2">WILDERNESS CHARACTERISTICS</th><th colspan="9">FOREST PLAN ALTERNATIVE</th></tr>
<tr><th>A</th><th>C</th><th>D</th><th>E</th><th>F</th><th>H</th><th>I</th><th>J</th><th>K</th></tr>
<tr><td>INTEGRITY/ NATURALNESS</td><td>Same as J</td><td>Management will be at a level lower than present. No change in integrity & naturalness.</td><td>Same as C</td><td>Same as C</td><td>Same as C</td><td>Management will continue at present level. No change in integrity or naturalness.</td><td>Same as C</td><td>Integrity & naturalness are rated low.</td><td>Same as H</td></tr>
<tr><td>SOLITUDE</td><td colspan="7">Same as J</td><td>Solidue is low due to small size of area.</td><td>Same as J</td></tr>
<tr><td>PRIMITIVE RECREATION</td><td colspan="7">Same as J</td><td>Primitive recreation same as solitude.</td><td>Same as J</td></tr>
<tr><td>CHALLENGING EXPERIENCES</td><td colspan="7">Same as J</td><td>None exist.</td><td>Same as J</td></tr>
<tr><td>SPECIAL FEATURES</td><td>Same as J</td><td>Elk are present. Improvement projects will not be accomplished due to lower level of management.</td><td>Same as C</td><td>Same as C</td><td>Same as C</td><td>Elk are present. Improvement projects will increase quality of elk habitat.</td><td>Same as C</td><td>Elk are present. Improvement may be foreclosed on.</td><td>Same as H</td></tr>
</table>

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 357 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	7,220	0	0	0	0	0	0	7,220	0
Dispersed Rec.	MRVDS	.71	0	0	0	0	0	0	.71	0
NONWILDERNESS	ACRES	0	7,220	7,220	7,220	7,220	7,220	7,220	0	7,220
Dispersed Recreation										
Non-Motorized	MRVDS	0	.04	.04	.04	.04	.04	.04	0	.04
Motorized	MRVDS	0	.63	.63	.63	.63	.63	.63	0	.63
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.34	.34	.34	.34	.34	.34	.34	.34	.34
Livestock	MAUMS	.43	.43	.43	.43	.43	.43	.43	.43	.43
Fuelwood	MCORDS	0	.02	.02	.02	.02	.02	.02	0	.02
Xmas Trees	MTREES	0	.03	.03	.03	.03	.03	.03	0	.03
Sediment Yield	MTONS									
Soil Improvement	ACRES	.01	.01	.01	.01	.01	.01	.01	.01	.01
Minerals	CASES	.35	.26	.26	.26	.26	.35	.26	.35	.35


4-358
COOPER
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
RANGE
SPRING
VALLEY
Square Top
Cave Sprs
Snow Cat Cabin
North Spring
Cave Creek Spring
Electronic Relay Site
Cave Mtn
BASTIAN VABM 10,742
South Fork Spring
Summit
Summit Spring
East Cave Spring
Aspen Spring
Springs
North Taylor Spring
Taylor Peak
South Taylor Spring
Taylor (Site)
Allen Spring
Cemetery
Gravel Pit
Cooper Canyon
Connors Pass
Connors Pass Well
Connors Canyon
Microwave Tower
Majors
Upper Bastian Spring
Bastian Spr
Bastian Creek
HANSON
Bastian Creek Ranch
South Bastian Spring
Layton Spr
Dry
Crystal Queen Mine
EAST VABM
Rattlesnake Knoll
Willard Spring
Indian Massacre (Hist Site)
Rosebud Spring
Swallow Well
Henry
John
Wash
Horse Camp Wash
Harbecke Ranch
Ranch
HIGHLINE ROAD
Cement Pipe Factory
Artesian Well
Horse Camp Springs
South Horse Camp Spring
Cougar Spring
Meadow Spring
50
6
570
580
575
437
438
436
576
578

ROADLESS AREA COOPER, #358 - 8,350 ACRES

1. Description

The Cooper Roadless Area on the Ely Ranger District lies approximately 15 miles southeast of Ely, Nevada. The unit's appearance is that of pinyon - juniper covered foothills between a desert valley and the higher mountians of the Schell Creek Range. The resident elk herd is a special attraction in the area.

The area is easily accessible from U.S. Highway 50 which runs along its southern boundary. Unimproved dirt roads provide access along the area's north and west sides. A dirt road to Allen Spring cuts into the northern half of the area.

The topography of the area changes from rolling hills and benchland on the lower east side of the unit to higher steep peaks on the west side. Drainages generally run north and east into Cooper Canyon. Elevation changes from 6400 feet on the east benches to approximately 8800 feet at the peaks on the west side of the unit. The soils are generally gravelly clay loam with limestone parent material. Erosion is not excessive anywhere in the unit. Rock types include Paleozoic sediments (primarily limestones, dolomites, shales, and quartzites) and Tertiary volcanics.

This area lies within the Intermountain sagebrush/pinyon-juniper type (3130-21). Pinyon pine and juniper dominate the lower slopes. Mountain mahogany stands also cover some fairly large areas. Sagebrush-grass types are located throughout the unit with some mountain big sage and mountain shrub areas in the upper elevations. Wet meadows and riparian vegetation such as chokecherry and rose surround several springs.

The primary current uses of this area are livestock grazing (sheep - 513 AUMs), recreation (500 RVDs), harvesting of timber products (i.e., Christmas trees, fuelwood, and pinenuts), and minerals exploration. The area has been identified as a traditional pinenut gathering area by the Nevada Tribal Council. USGS has identified this area to have prospective potential for oil and gas although no leases presently are located in the area. USGS rates the entire unit as high for silver exploration. Nickel and antimony have been reported as occurring within the area. No perennial streams are located in the unit. Several springs are located on private land within the roadless area.

2. Capability

The natural integrity and appearance of the area has been rated as very low. These low ratings are mainly due to unimproved dirt roads which run throughout the area. Opportunities for solitude and primitive recreation are also rated low due to the lack of screening which permits numerous permanent off-site intrusions (i.e., the major highway adjacent to the south boundary, the active silver mine immediately west of the unit, the powerline adjacent to the north boundary). The resident elk herd provides a unique special feature of the area. The area has been reduced from its original size by approximately 2410 acres due to a road running through the east side. The area east of the road is not of sufficient size to be evaluated and is deleted from further consideration.

No federally listed threatened or endangered plant or animal species occur in the area. Several Forest Service designated sensitive palnts have been documented on areas adjacent to the unit, and probably are found in the roadless area itself. These are: _Astragalus lentiginosus_ var. _latus_ and _Haplopappus watsonii_.

3. Availability

Recreation use is mainly big game hunting and four-wheel drive activities. Cross-country skiing and snowmobiling also occur to some extent. There are few opportunities for campground development althrough the potential for increased dispersed recreation is high.

The majority of this area is fall and winter range for deer and elk. The higher mountain shrub and wet meadow areas are used during the summer months. Habitat improvement projects such as water developments or the clearing of small patches of pinyon-juniper to increase forage areas on the east half of the unit would benefit these animals.

The area is grazed to some extent by domestic sheep. Much of the unit is classified as forest or nonrange with the suitable range located on the drainages or associated with springs. The National Forest boundary fence is located on the east side of the unit. No other sturctural range improvements are located on the unit. There is some potential to increase livestock forage in the timbered east half of the unit by burning small areas.

The area is rated as high in prospective potential for precious and base metals. The potential for an increase in mineral activity is high due to the area's high mineralization and its location one mile east of an active silver mine. There are approximately 50 mining claims within the unit.

Archaeological sites including numerous lithic scatters and rock shelters occur adjacent to the unit. Additional undocumented sites probably occur within the area.

The fire hazard is high in the east half of the unit where the pinyon-juniper stands are fairly dense. No major fires have occurred recently. Insects and disease are not a problem.

240 acres of private land are lcoated within this unit. Most of the land is associated with springs in the area.

4. Need

The Cooper roadless area lies approximately 16 miles southeast of Ely, Nevada. The nearest existing wilderness area lies approximately 180 miles north of the area. The Intermountain sagebrush/pinyon-juniper ecosystem is common throughout Nevada, thus wilderness classification of the Cooper roadless area to protect this vegetation is not needed.

During the RARE II process, local public sentiment strongly favored nonwilderness management. Comment from the nonlocal public also favored nonwilderness management. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative.

Structural and non-structural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use and unscheduled mining developments may reduce the amount of wilderness available for future consideration. The small size of the area aggravates this problem.

TABLE A--ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

358 ROADLESS AREA

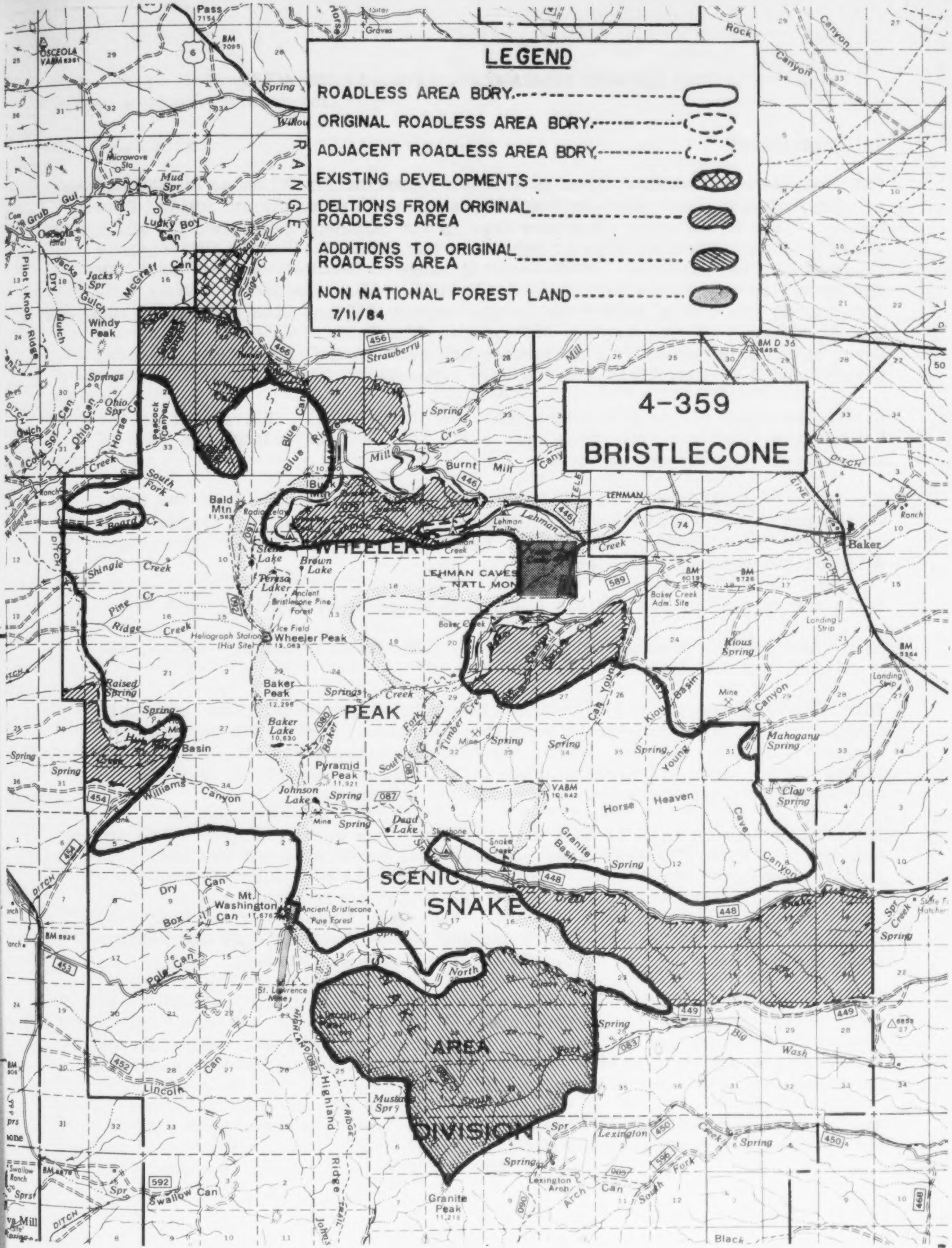
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						10760			10760
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Deb Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Motdsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	2410	10760	10760	10760	10760		10760		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	8350							10760	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 358 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J 8,350 acs are recommended for wilderness.	Management at a lower level than present. Integrity & naturalness will decline.	Same as C	Same as C	Same as C	Management will continue at present level. Integrity & naturalness will remain the same.	Same as C	Integrity & naturalness have been rated low. Numerous unimproved dirt roads circuit the area.	Same as H
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to lack of screening from off-area intrusions.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Elk are present. More acres are available for habitat improvement.	Elk are present. Habitat may deteriorate due to lack of improvement projects.	Same as C	Same as C	Same as C	Same as A with more area opened to habitat improvement.	Same as C	The elk are present. Habitat improvement opportunities may be reduced.	Same as H

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 358 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	8,350	0	0	0	0	0	0	10,760	0
Dispersed Rec	MRVDS	.82	0	0	0	0	0	0	1.06	0
NONWILDERNESS	ACRES	2,410	10,760	10,760	10,760	10,760	10,760	10,760	0	10,760
Dispersed Recreation										
Non-Motorized	MRVDS	.01	.06	.06	.06	.06	.06	.06	0	.06
Motorized	MRVDS	.21	.94	.94	.94	.94	.94	.94	0	.94
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.51	.50	.50	.50	.50	.50	.50	.51	.50
Livestock	MAUMS	.64	.64	.64	.64	.64	.64	.64	.64	.64
Fuelwood	MCORDS	.004	.019	.019	.019	.019	.019	.019	0	.019
Xmas Trees	MTREES	.006	.027	.027	.027	.027	.027	.027	0	.027
Sediment Yield	MTONS									
Soil Improvement	ACRES	.02	.02	.02	.02	.02	.02	.02	.02	.02
Minerals	CASES	.49	.39	.39	.39	.39	.51	.39	.51	.51


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
4-359
BRISTLECONE
WHEELER PEAK SCENIC AREA
SNAKE DIVISION
LEHMAN CAVES NATL MON
Wheeler Peak 13,063
Baker Peak 12,298
Pyramid Peak 11,921
Mt. Washington 11,676
Bald Mtn. 11,562
Granite Peak 11,219
Baker
Lehman Caves
Snake Creek
Lincoln Can
Highland Ridge
Windy Peak
Osceola
RANGE
Big Wash
Strawberry
Baker Creek
Lehman Creek

ROADLESS AREA BRISTLECONE, #359 - 51,700 ACRES

1. Description

The Bristlecone Roadless Area is located approximately 40 miles southeast of Ely, Nevada, in east-central Nevada, and is entirely in White Pine County. The Bristlecone Roadless Area is the southern Snake Range, which extends along the east edge of Nevada in the Basin and Range physiogrphic province. The elongate north-trending range is bounded on the west by Spring Valley and on the east by Snake Valley. The area is reached by U.S. Highway 93 in Spring Valley and Nevada Highway 487 and Utah Highway 21 in Snake Valley. Nevada Highway 488 extends from Baker, Nevada, to Lehman Caves National Monument, which borders the area on the northeast. Baker, Nevada, and Garrison, Utah, are the only communities in the immediate area.

Cliffs and steep slopes are common features of the area. Elevations in the Bristlecone Roadless Area range from 6,200 to 7,400 feet along the base of the range to 13,063 feet on Wheeler Peak.

The area is accessible by paved roads and improved dirt roads from the east, which lead to campgrounds and trailheads. West side access is limited via unimproved dirt roads. Many trails taverse the higher areas, including a National Recreation Trail System.

Soils are very rocky and exhibit a moderate erosion potential.

Rock types include Precambrian quartzites, Cambrian limestones, shales, and granitics, and Jurassic intrusives.

This area lies within the Intermountain sagebrush/ponderosa pine ecosystem (3130-010). Vegetation varies with the elevation. Pinyon pine and juniper dominate the lower slopes. Aspen, mountain mahogany, white and Douglas fir, limber pine, and bristlecone pine are found in the upper elevations. Sagebrush-grass types are located throughout the area.

The primary current uses of this area are livestock grazing (1,589 AUMs) and recreation (9,000 RVDs). Other resource uses on or adjacent to the area include developed recreation, firewood and post and pole removal, wildlife habitat, and mining activity. There are 16,363 acres within the area that are potentially mineralized. Major deposits include gold, tungsten, antimony, lead, and silver. Oil and gas leases occur in only one section along the perimeter of the unit. No seismic work has occurred.

Approximately two-thirds of the Wheeler Peak Scenic Area is contained in this unit. Wheeler Peak (13,063 feet) is the center of the unit's attraction. There are several other peaks above 11,000 feet. Five alpine lakes are present along with a remnant icefield. Hunting, fishing, camping, and sight-seeing are attractions to the area.

Special attractions include bristlecone pine, caves, archaeological sites, and reintroduced Rocky Mountain bighorn sheep.

This area is large, mostly unmodified by man. Certain localities show evidence of past mining activity.

2. Capability

Several boundary modifications were made on the area to eliminate developed areas and areas considered to be highly mineralized. The area adjacent to Windy Canyon was excluded due to a high potential for mineral development and pinenut harvesting. The areas around Lehman and Baker Campgrounds were excluded due to the developed nature of those areas. The boundary in the area of Snake Creek was moved west to the ridge to provide for a more manageable boundary. Acreage was excluded approximate to Williams Canyon due to the numerous mining claims in those areas. An area which was evaluated as a portion of the Highland Ridge Roadless Area was added to the Bristlecone Recommendation because of its exceptional scenic qualities and natural integrity. The road in Big Wash has been determined to be impassable.

There are no topographic features which would provide a definable boundary for a potential wilderness. The natural integrity and appearance of the area is rated as high and very high respectively primarily because of the nature of the terrain and spectacular scenery. Impacts of man that cannot be excluded include mined areas and the presence of nonindigenous plants.

Opportunities for solitude and primitive recreation are both rated very high due to the area's size and lack of access.

Special features in the area include a heliograph station (Wheeler Peak Summit), Rocky Mountain bighorn sheep, and the unique Utah cutthroat trout.

No federally listed threatened or endangered plant or animal species are known to occur in the area.

3. Availability

The majority of recreation use occurs in the developed sites outside this area. Dispersed recreation in the area includes hunting, fishing, sightseeing, and hiking. Cross-country skiing and snowmobiling occur to a limited degree. The potential for additonal dispersed activity is high.

Overall watershed value is high with little potential for watershed improvement due to the high cost per benefit gained.

This area is grazed by livestock with annual forage production generally fair to good. Several range improvement fences and water developments are located in the area. The potential for type conversions is low due to the ruggedness of the terrain.

The area contains several commercial Christmas tree cutting areas and pine nut gathering areas along the east side. Cutting of juniper posts, aspen poles, and fuelwood occurs periodically throughout the unit exclusive of Wheeler Peak Scenic Area. There are opportunities to maintain and possibly increase these activities to a small extent.

The west side of this unit is rated high in prospective potential for base tals. The south-central part of the unit has moderate potential for nomic mineral occurrences. Gold, tungsten, antimony, lead, and silver have been mined in the past. Oil and gas potential is low.

There are approximately 170 mining claims in the south-central and west parts of the unit.

Archaeological sites including petroglyphs, pictographs, and lithic scatters occur in the area.

Present air quality is high.

Electronic sites are the only Special Use authorizations at present.

The majority of the area is National Forest system lands. There is no private land within the area.

Fire potential is high in this area because of heavy fuels and recreation use, although no major fires have occurred recently. Insects and disease are not a problem.

4. Need

This roadless area lies approximately 40 miles southeast of Ely. The nearest existing wilderness area lies approximately 195 miles north of the area.

The Intermountain sagebrush/ponderosa pine ecosystem is common throughout Nevada, thus wilderness classification of the Bristlecone Roadless Area to protect this vegetation type is not needed.

This area was originally inventoried in RARE I and identified for further wilderness study at that time. During the RARE II process, local public sentiment favored nonwilderness management. Comment from the nonlocal pubic generally favored wilderness classification. The area was allocated to further planning.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that the area may have gas and oil potential.

Major companies have expressed an interest in the unit as an exploration target.

5. Preferred Alternative Recommendation

Under the Preferred Alternative (Alt. K) 51,700 acres are recommended for wilderness designation, due to the very high degree of natural integrity and opportunities for solitude provided in the area. The boundary for this area (see map) largely eliminates uses that would conflict with wilderness such as mining and harvesting woodland products. Upon legislative enactment this area would be withdrawn from mineral entry subject to valid existing rights. This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant. The exception is the mineral resource where the values are not known but considered to be significant.

The remaining area is acres are designated for non wilderness uses. The majority of the mining claims occur in this area. Some other resource uses such as utilization of pinyon-juniper occurs but the opportunity for other resource use is minimal. With the exception of mined over areas, it is estimated that most of this area would be available for wilderness consideration during the next plan revision.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

359 ROADLESS AREA

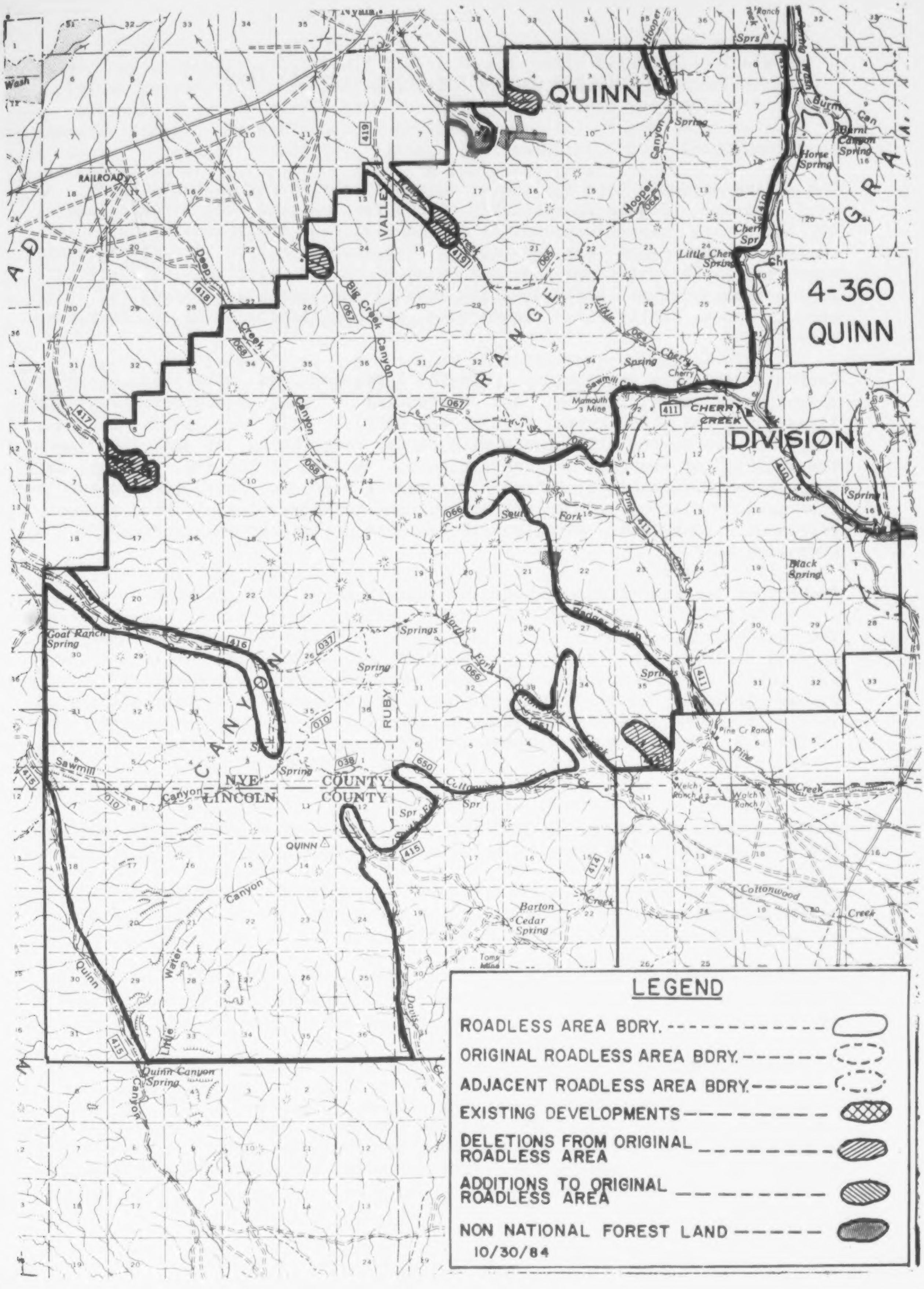
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						16363			8451
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H): WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					16363				
All low			16363	76514					
All high except Lvstk									
All high except WL									
All moderate	16363	16363					76514		
Wilderness	60151	60151	60151		60151	60151		76514	51700

TABLE B—IMPACTS ON WILDERNESS CHARACTER **359 ROADLESS AREA**

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Wilderness characteristics maintained on 60,151 ac. Remaining area would have moderate activities.	Same as A	Same as A except low level of activity.	ORV Use & mining would modify.	Same as A except amenity values emphasized on area outside wilderness.	All wilderness characteristics retained.	Moderate level of resource activity will modify from additional roads & ORV use on solitude & naturalness.	No change from H	Wilderness characteristics retained on 51,700 acres. Current uses maintained on remaining area.
SOLITUDE	Solitude modified.	Same as A	Same as E	Motorized use modifies solitude.	Same as E	Same as K	Same as E	No change	Solitude & naturalness modified.
PRIMITIVE RECREATION	Same as H					No change from present.	Same as H		
CHALLENGING EXPERIENCES	Same as H					No change. from present.	Same as H		
SPECIAL FEATURES	Same as H	Same as H	Same as E	Less maintainance of features.	Mule deer Big horn sheep emphasized.	Scenic Area classification retained.	Same as H	No change from H	Scenic area & wildlife features retained.

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 359 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	60,151	60,151	60,151	-	60,151	60,151	-	76,514	51,700
Dispersed Rec	MRVDS	5.79	3.79	3.79	-	3.79	3.79	-	4.80	3.73
NONWILDERNESS	ACRES	16,363	16,363	16,363	76,514	16,363	16,363	76,514	-	8,451
Dispersed Recreation										
Non-Motorized	MRVDS	.252	.252	.230	1.094	.230	.230	1.094	-	.15
Motorized	MRVDS	.738	.738	.718	2.283	.718	.718	3.283	-	.46
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	3.837	3.837	3.773	4.061	3.773	3.773	4.061	3.337	3.773
Livestock	MAUMS	1.733	1.733	1.724	1.724	1.726	1.726	1.724	1.724	1.724
Fuelwood	MCORDS	.35	.35	.27	1.31	.27	.27	1.31	-	.23
Xmas Trees	MTREES	.03	.03	.03	.16	.03	.03	.16	-	.03
Sediment Yield	MTONS									
Soil Improvement	ACRES	.92	.92	.51	.51	.84	.84	.51	.92	.84
Minerals	CASES	21.66	21.66	19.95	19.95	21.66	21.66	19.95	21.66	21.66


4-360
QUINN
QUINN
CHERRY CREEK
DIVISION
RANGE
GRANT RANGE
CANYON
QUINN CANYON RANGE
NYE COUNTY
LINCOLN COUNTY
RAILROAD VALLEY
RUBY
QUINN
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA QUINN, #360 - 99,750 ACRES

1. Description

The Quinn Roadless Area is located approximately 90 air miles southwest of Ely, Nevada. Access is available on numerous unpaved county roads leading to the area. The area consists of alluvial fans and basins below steep, rugged mountains and long drainages. The ecosystem type is Intermountain sagebrush with ponderosa pine and pinyon-juniper woodland (3130-10-21). Pinyon and juniper trees dominate much of the vegetative aspect of this area. Aspen, white fir, limber pine, and bristlecone occur at the higher elevations.

Current uses are grazing by domestic livestock and wildlife, hunting, trapping, fishing, mining, and harvesting of wood products. Domestic livestock graze 1830 Animal Unit Months (AUM). Mule deer habitat includes range for use during all seasons with winter range being the most important. The majority of recreational use occurs in the form of hunting, fishing, and trapping. Nine hundred mining claims and several abandoned mines occur in the area. No producing mines are currently in operation. Wood products (firewood, pine nuts, Christmas trees, and posts) are harvested from the area each year.

Rock types include Paleozoic sediments and Tertiary intrusives.

The Quinn Canyon mountain range is bounded by Railroad, Garden, and Sand Springs Valleys. The Grant Range and Worthington Mountains lie to the north and south, respectively. The high mountians of the Quinn Range appear distant from the valley floors and snow often lingers in the high elevations into July. The most scenic landmarks are high rock cliffs that bound some of the canyons leading to the crest of the range.

2. Capability

Roads, mineral developments, grazing, and nonindigenous plants have impacted the natural state of the area. Opportunities for solitude and primitive recreation are both rated as high due to topographic and vegetative screening, and the size of the area. Moderate potential exists for challenging experiences. There are no known threatened or endangered plants or animals that occur in the Quinn Roadless Area.

Boundary modifications were made on five road stems within the area. The changes involved bladed roads that were missed during the original inventory.

3. Availability

Limited potential exists for the development of picnicking and campground recreation sites. Wildlfe habitat could be improved by increasing vegetation diversity in selected areas, particularly in the pinyon-juniper woodland. The potential for improving water yield or quality from the roadless area is possible but would not be economically feasible. There is very limited potential for expanding the present livestock operations on the area. Overall, there is very little suitable grazing land available for use by domestic stock. Forest products could be harvested at greater levels in some areas as demand increases. Access and isolation from any sizeable population areas are two factors limiting increased forest product harvests. There is no potential for cultivating or harvesting merchantable saw logs from the area. The greatest potential for development in the Quinn area lies in mineral production. The USGS has identified the area as having a high potential for fluorspar, gold, silver, mercury, and molybdenum. Uranium and lead also occur on two prospects. The area has a low potential for oil and gas. Significant cultural resources have not been identified, but evidence of use by Indians has been located.

The potential for large fires and insect and disease problems is high due to the density of the pinyon-juniper woodland. There are 247 acres of private land within this area.

4. Need

The nearest wilderness areas are in the Inyo and Sierra National Forests in southeastern California, 160 miles to the west. The nearest population center is Las Vegas, Nevada, approximately 120 miles to the south.

In RARE II, local sentiment slightly favored classification of this area as wilderness. Nonlocal public input also favored management of the area for wilderness uses. The area was recommended to Congress for wilderness classification.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input was one comment expressing an opinion that wilderness designation would cause loss of local control, and one comment expressing an opinion that wilderness designation would protect archaeological values.

Many mining and exploration companies oppose the classificaiton of this area as wilderness due to the high potential for the occurrence of economic mineral deposits.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

Structural range improvements and harvesting woodland products are part of the scheduled management prescribed for the area. ORV use is expected to increase slightly. The area has not been withdrawn from mineral entry. The greatest potential for development in the Quinn areas lies in mineral production. The structural range improvements and unscheduled mining developments will reduce the amount of wilderness available for consideration in the future. The large size of the area may lessen this impact.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 360 ROADLESS AREA

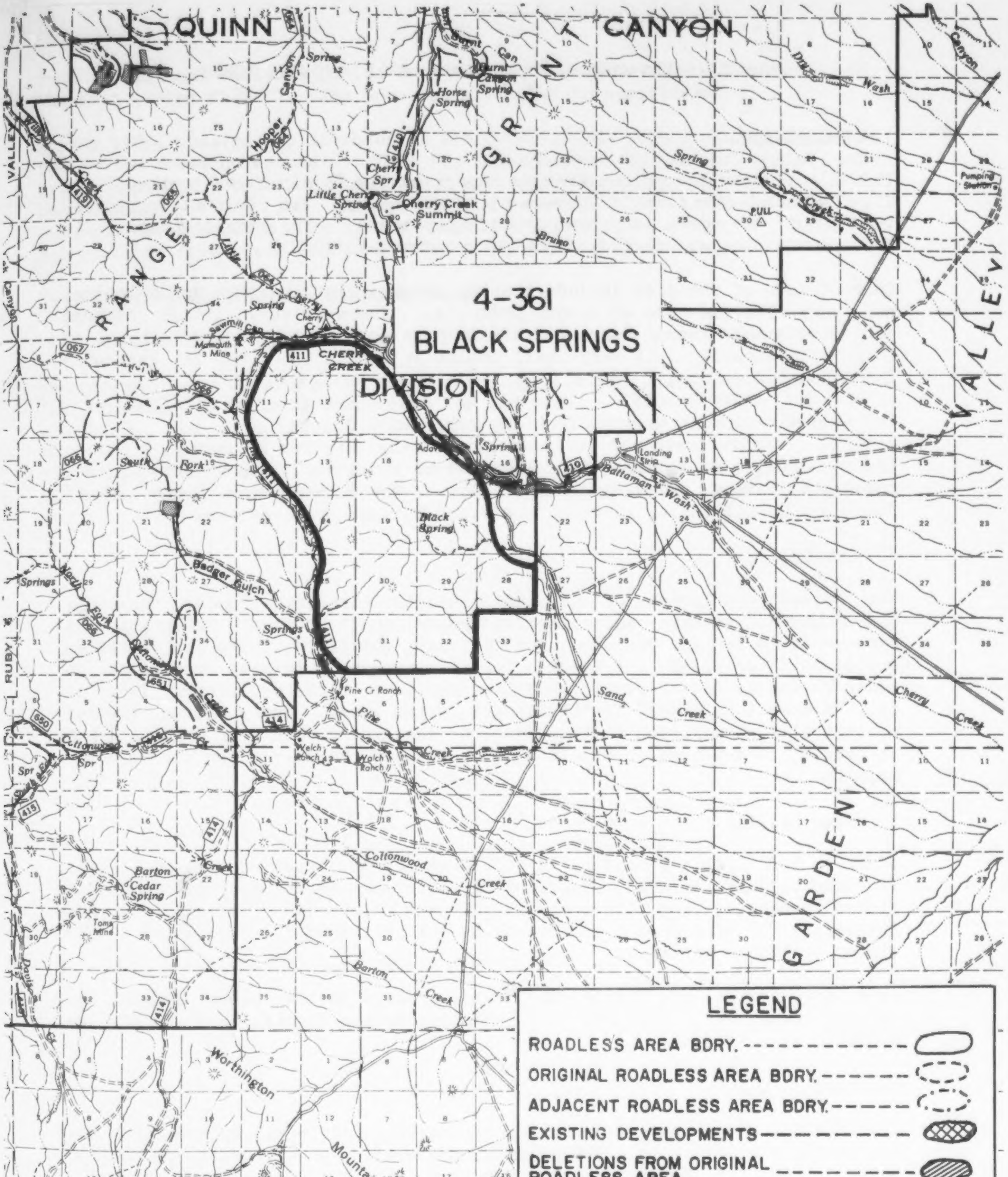
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						911			82101
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H) WL/S&W/Min (M)									
S&W/WL/NMDisp/Mins (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					100661				
All low	911	911	100661	100661			100661		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	99750	99750				99750		100661	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 360 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	All but 911 acres will be managed as wilderness. Integrity & naturalness.	Same as A	Management level lower than present. Integrity & naturalness could be lessened by increased mining activity.	Same as D	Management emphasis on noncommodity resources. Integrity & naturalness should not be impacted.	Same as D	Same as D	Integrity & naturalness have been impa acted by current and past uses.	Management will remain at present level. Integrity & naturalness may be impacted by increased mining.
SOLITUDE	Same as J	Same as J	Solitude may be impacted by increased mining.	Same as D	Same as J	Same as D	Same as D	Solitude is rated high due to size of area, vegetation screening & topography.	Same as D
PRIMITIVE RECREATION	Same as J	Same as J	Primitive recreation same as solitude.	Same as D	Same as J	Same as D	Same as D	Primitive recreation same as solitude.	Same as D
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Moderate potential exists.	Same as J
SPECIAL FEATURES	Same as J	Same as J	No impact Same as J	Same as J	Same as J	Same as J	Same as J	Bristlecone pine are found at higher eleva-	Same as D

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 360 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	99,750	99,750	0	0	0	99,750	0	100,661	0
Dispersed Rec.	MRVDS	.87	.87	0	0	0	.87	0	.88	0
NONWILDERNESS	ACRES	911	911	100,661	100,661	100,661	911	100,661	0	100,661
Dispersed Recreation										
Non-Motorized	MRVDS	0	0	.08	.08	.1	0	.08	0	.08
Motorized	MRVDS	.01	.01	.64	.64	.64	.01	.64	0	.64
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.48	.48	.47	.47	.41	.48	.47	.48	.41
Livestock	MAUMS	1.25	1.25	1.25	1.25	.88	1.25	1.25	1.25	.88
Fuelwood	MCORDS	0	0	.04	.04	.04	0	.04	0	.04
Xmas Trees	MTREES	0	0	.004	.004	.004	0	.004	0	.004
Sediment Yield	MTONS									
Soil Improvement	ACRES	.07	.07	.04	.04	.07	.07	.04	.07	.4
Minerals	CASES	4.78	4.78	6.45	6.45	5.61	4.78	6.45	4.76	4.76


QUINN CANYON
GRANT RANGE
4-361
BLACK SPRINGS
CHERRY CREEK DIVISION
GARDEN VALLEY
RUBY VALLEY
Worthington Mountains
Cherry Creek Summit
Little Cherry Spring
Horse Spring
Burnt Canyon Spring
Black Spring
Badger Gulch
South Fork
Pine Cr Ranch
Welch Ranch
Cottonwood Creek
Barton Cedar Spring
Barton Creek
Sand Creek
Cherry Creek
Pine Creek
Bruno
Mammoth 3 Mine
Battleman Wash
Landing Strip
Pumping Station
Microwave Station
Worthington Peak
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA BLACK SPRINGS, #361 - 10,235 ACRES

1. Description

The Black Springs Roadless Area is approximately 85 air miles southwest of Ely, Nevada. The terrain is very steep and rocky. The dominant vegetation throughout the area is pinyon and juniper trees. The ecosystem type is Intermountain sagebrush/pinyon-juniper woodland (3130-21).

Current uses of the area include grazing by domestic livestock and wildlife, and very limited use of timber products. There is very little mineral activity in this area. Approximately 20 days are spent by recreationists in this area annually. A very small amount of forage (56 AUMs) is available for livestock grazing.

The predominant rock type is Tertiary volcanic tuffs.

The appearance of the area is influenced by the steep, dry mountains and dominanat pinyon and juniper vegetaiton. The Quinn Canyon Range, Grant Range and Garden Valley surround the Black Springs roadless area.

2. Capability

The overall influence of existing impacts (trails, roads, grazing, nonindigenous plants, and unimproved roads) on the natural integrity and appearance is low and very low, respectively, therefore, those two criterion would be rated haigh. Potential for solitude and primitive recreation is moderate due to the short distance from the core to the perimeter. There is only moderate potential for challenges in the area. There are no special ecological features such as threatened or endangered plants or animals known to occur in the area. Some prehistoric sites probably occur in limited amounts.

3. Availability

There is very little potential in this area for developed recreation sites, improved wildlife habitat, expansion of livestock operations, utilization of timber products, and discovery of cultural resources. The oil and gas potential for the area is described as low by the USGS. There are a few mining claims in the area.

Fire and insect and disease could be a problem in the dense pinyon and juniper community; however, the resource values in this area are of low economic significance.

4. Need

The nearest wildernes areas are in southeastern California on the Inyo and Sierra National Forests, 160 miles to the west. The nearest population center from the Black Springs Roadless Area is Las Vegas, Nevada, approximately 120 miles south.

Both local and nonlocal public inputs favored nonwilderness management of the area during RARE II. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses on each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

Structural range improvements and harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. However, mineral resources on the area have a low potential for development. Range structural improvement projects may impact the amount of wilderness available for future consideration. If designed properly impacts will be reduced.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 361 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						10235		10235	
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low		10235	10235	10235			10235		
All high except Lvstk					10235				
All high except WL									
All moderate									
Wilderness	10235							10235	

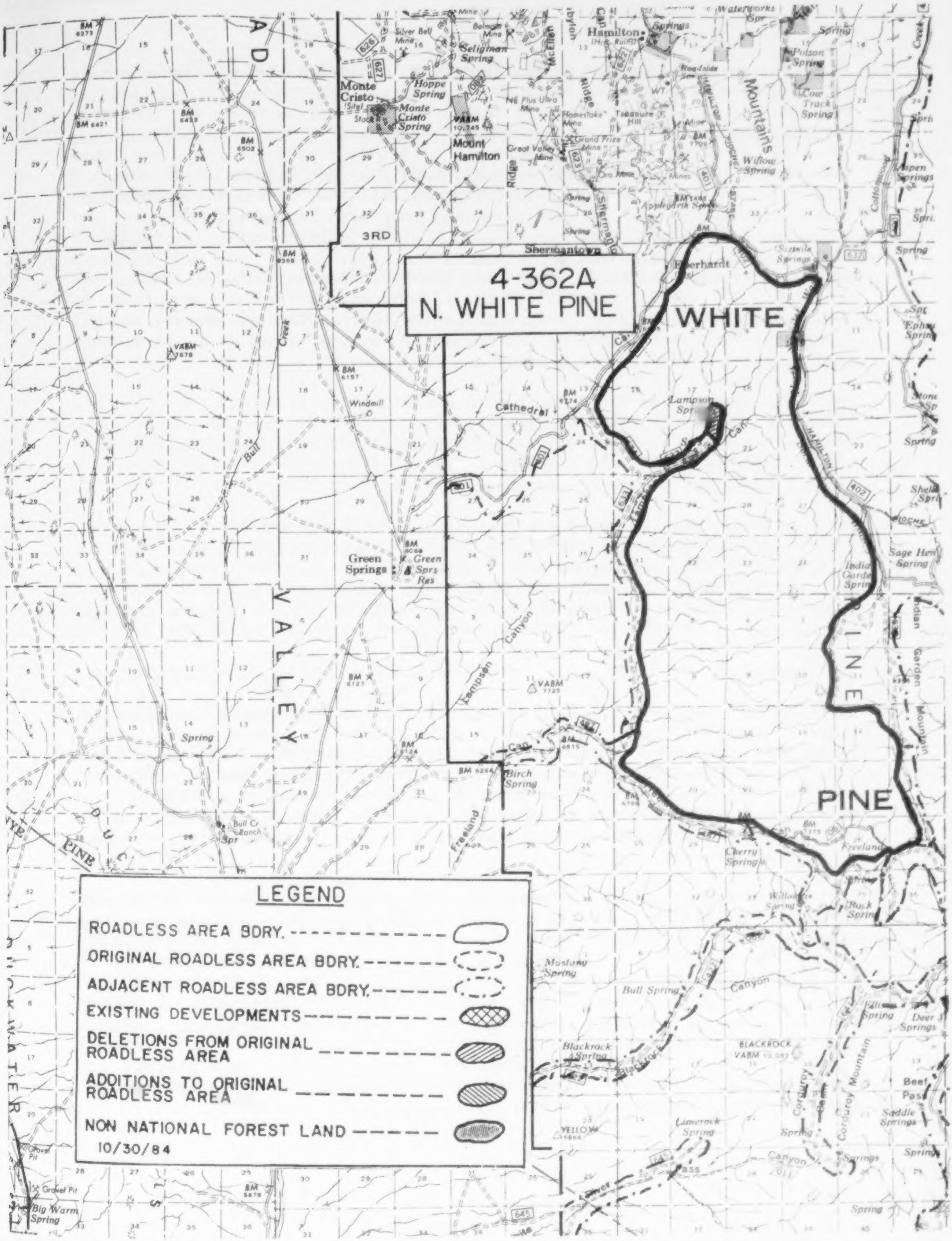
TABLE B—IMPACTS ON WILDERNESS CHARACTER

361 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be at a level lower than present. Integrity & naturalness same as J.	Same as C	Same as C	Management emphasizes all outputs except wildlife. Ingrity & naturalness may be impacted.	Manger-will continue at present level. Integrity & naturalness will remain the same.	Same as C	Integrity & naturalness are rated high.	Same as H
SOLITUDE	Same as J	—	—	—	Solitude may be reduced to a lower rating.	Solitude same as J	Same as J	Solitude is rated as moderate due small size of area.	Same as J
PRIMITIVE RECREATION	Same as J	—	—	—	Primitive recreation same as solitude.	Primitive recreation same as J.	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	—	—	—	Same as J	—	—	—	Moderate potential exists.	Same as J
SPECIAL FEATURES	—	—	—	Same as J	—	—	—	None exists.	Same as J

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 361 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	10,235	0	0	0	0	0	0	10,235	0
Dispersed Rec	MRVDS	.09	0	0	0	0	0	0	.09	0
NONWILDERNESS	ACRES	0	10,235	10,235	10,235	10,235	10,235	10,235	0	10,235
Dispersed Recreation										
Non-Motorized	MRVDS	0	.01	.01	.01	.01	.01	.01	0	.01
Motorized	MRVDS	0	.08	.08	.08	.08	.08	.08	0	.08
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.06	.06	.06	.06	.06	.06	.06	.06	.06
Livestock	MAUMS	.15	.15	.15	.15	.09	.10	.15	.15	.10
Fuelwood	MCORDS	0	.01	.01	.01	.01	.01	.01	0	.01
Xmas Trees	MTREES	0	.01	.01	.01	.01	.01	.01	0	.01
Sediment Yield	MTONS									
Soil Improvement	ACRES	.01	.005	.005	.005	.01	.005	.005	.01	.001
Minerals	CASES	.56	.79	.79	.79	.66	.56	.79	.56	.56


WHITE
PINE
VALLEY
Hamilton
Monte Cristo
Mount Hamilton
Shermantown
Cathedral
Lampson Spr
Lampson Canyon
Green Springs
Birch Spring
Cherry Spring
Freeland
Blackrock Spring
Mustang Spring
Bull Spring
Limerock Spring
Corduroy Mountain
Garden Mountain
Sage Hen Spring
Willow Spring
Sixmile Springs
Eberhardt
3RD

4-362A
N. WHITE PINE

LEGEND

- ROADLESS AREA BDRY.
- ORIGINAL ROADLESS AREA BDRY.
- ADJACENT ROADLESS AREA BDRY.
- EXISTING DEVELOPMENTS
- DELETIONS FROM ORIGINAL ROADLESS AREA
- ADDITIONS TO ORIGINAL ROADLESS AREA
- NON NATIONAL FOREST LAND

10/30/84

ROADLESS AREA WHITE PINE NORTH, #362A - 23,626 ACRES

1. Description

The White Pine North Roadless Area on the Ely Ranger District lies some 30 air miles southwest of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded mountains in the northern part and a mosaic of wooded and open shrub hills in the southern part. Improved dirt roads circle all but a small portion of the area. This area was formerly part of unit #362 which has since been cut by roads.

Geologically, the area is predominantly Paleozoic sedimentary rocks. Topography includes foothils and mountains to about 9,500 feet elevation. Drainages are ephemeral and meadows are few.

This area lies within the juniper-pinyon woodland (3130-21) and the western ponderosa forest (3130-10) ecosystems. Pinyon pine and juniper dominate the western portion of the area while the remainder offers a mosaic of wooded areas interspersed with open shrublands. Bristlecone pine grows on the tallest peaks and mountain mahogany covers rocky hillsides.

Primary uses include livestock grazing (cattle - 296 AUMs) and recreation use (estimated 200 RVDs). The area provides summer range for mule deer and sage grouse. Wild horse use occurs in the northern and western portions of the area. Potential for hardrock minerals is moderate and for oil and gas occurrence, low. Oil and gas leases cover about 25% of the area or 5,939 acres.

2. Capability

Dirt roads could provide a definable boundary for potential wilderness. Natural integrity and appearance are rated moderate because of several unimproved roads, range improvements, and nonindigenous plants. There is a very low potential for challenging experiences. No threatened or endangered species are known to occur in the area. Opportunities for solitude and primitive recreation are also moderate due to the ease of access, the short distance from the perimeter to the area's core, and the absence of effective vegetation screening.

A boundary modification was made in the Lampson Spring area. Ninety-one acres were deleted as a result of the road being overlooked during the first inventory.

3. Availability

Recreation use is limited to mule deer and upland game bird hunting. Winter sports use is very limited to nonexistent. Forage values for livestock range from poor to fair. Livestock fences, water developments and reseedings are present within the area. Potential exists for further vegetation type conversions within the pinyon-juniper ecosystem.

Wood products include fuelwood, Christmas trees, posts, and pine nuts, but harvest of these resources is minor. Hardrock minerals and oil and gas potential is rated as low. A few mining claims are staked in the northern and southeastern part of the area. Archaeological sites exist within the area but have not been recorded. The majority of the area is National Forest with 40 acres of private land within the boundary. Past records show that fire potential is moderate throughout.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 170 miles north of the area. The roadless area is remote from major population centers; Ely is about 50 road miles away. Sicne the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored nonwilderness management. Comment from the nonlocal public was split between wilderness designation and nonwilderness management. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An anlysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

Structural and non-structural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase. The area has not been withdrawn from mineral entry. However, potential for mining developments are considered low. The area's biggest potential lies in the conversion of pinyon-juniper into grass seedings.

Structural range improvements and the increased ORV use will have the greatest impact on the amount of wilderness available for future consideration. Non-structural range improvements tend to be transitory in nature subject to natural successional processes. If desiganted and/or managed properly these types of management actions may have no impact on the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **362A ROADLESS AREA**

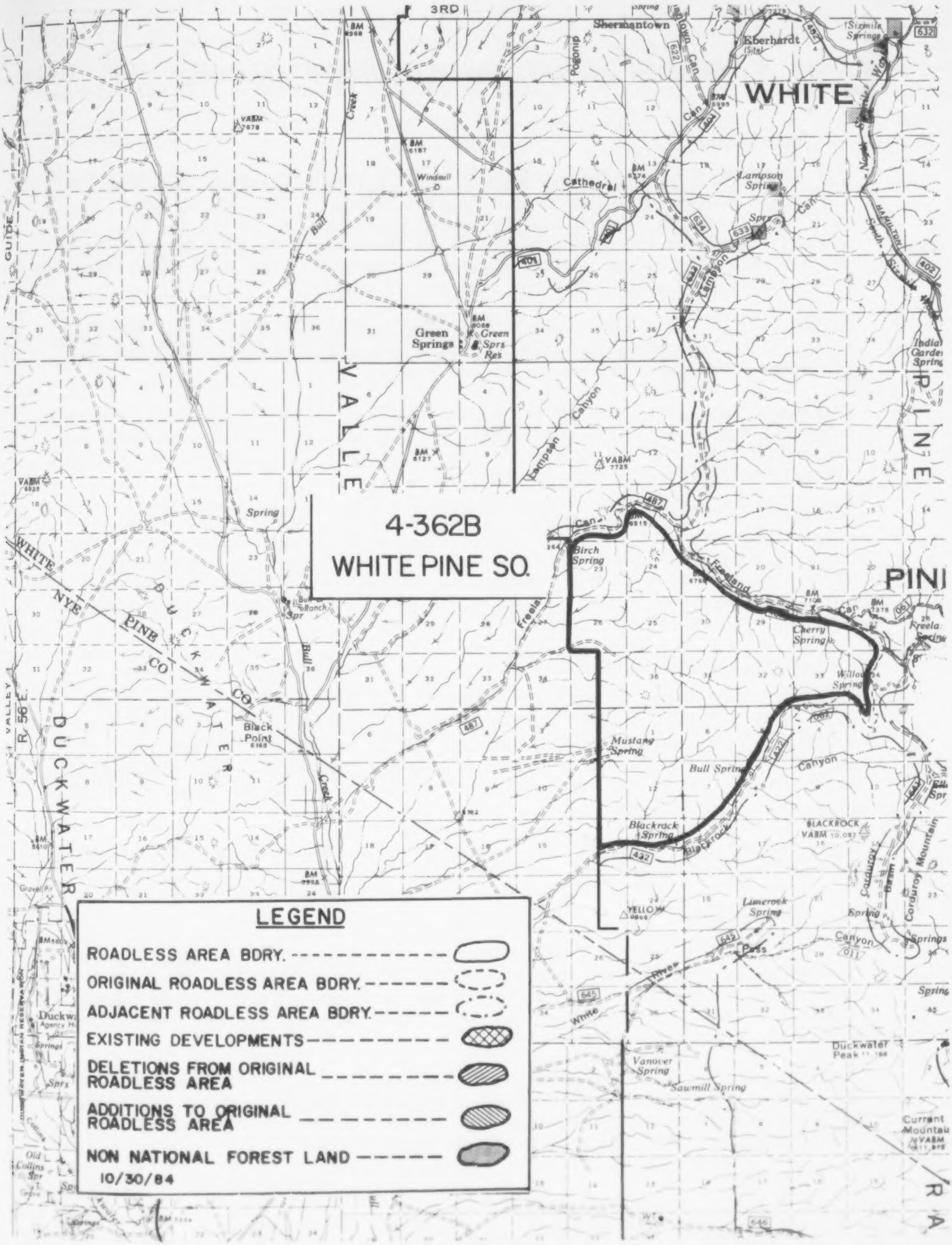
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		23717				23717			23717
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)					23717				
S&W/WL/NMDisp/Mins (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	91		23717	23717			23717		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	23626							23717	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 362A ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	All but 91 acres are managed as wilderness. Integrity & naturalness will be same as J.	Management will remain at present Integrity & naturalness may be impacted by resource improvement activities.	Management will be at a level lower than present.	Same as D	Manage-would emphasize motor-dispersed developed recreation & woodland products. Integrity & naturalness may be impacted.	Same as C	Same as D	Integrity & naturalness are considered to be mo-moderate.	Same as C
SOLITUDE	Same as J	Solitude may be reduced to a lower rating through management actions.	———	———	Same as C	———	———	Opportunity for solitude is moderate due to unimproved dirt roads, range improvement & non-indigenous plants.	Same as C
PRIMITIVE RECREATION	Same as J	Primitive recreation same as solitude.	———	———	Same as C	———	———	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	———	———	———	———	Same as J	———	———	Low opportunity for challenging experiences.	Same as J
SPECIAL FEATURES	———	———	———	———	Same as J	———	———	None present.	Same as J

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 362A ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	23,626	0	0	0	0	0	0	23,717	0
Dispersed Rec	MRVDS	.72	0	0	0	0	0	0	.72	0
NONWILDERNESS	ACRES	91	23,717	23,717	23,717	23,717	23,717	23,717	0	23,717
Dispersed Recreation										
Non-Motorized	MRVDS	0	.01	.01	.01	.01	.01	.01	0	.01
Motorized	MRVDS	0	.7	.7	.7	.7	.7	.7	0	.7
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.45	.43	.42	.42	.42	.43	.42	.43	.43
Livestock	MAUMS	.7	.72	.7	.7	.71	.72	.7	.7	.72
Fuelwood	MCORDS	0	.04	.04	.04	.05	.04	.04	0	.04
Xmas Trees	MTREES	0	.004	.004	.004	.004	.004	.004	0	.004
Sediment Yield	MTONS									
Soil Improvement	ACRES	.03	.04	.04	.04	.04	.04	.04	.03	.03
Minerals	CASES	2.94	2.94	2.45	2.45	2.45	2.94	2.94	2.94	2.94


3RD
Shermantown
Eberhardt (Site)
Sixmile Springs
WHITE
PINE
PINI
Pogonip
Cathedral
Lampson Spring
Lampson Can
Green Springs
Green Sprs Res
Windmill
VALLE
Lampson Canyon
VABM 7725
Birch Spring
Freeland Can
Cherry Spring
Willow Spring
Freeland Spring
Indian Garden Spring
Mustang Spring
Bull Spring
Canyon
Blackrock Spring
Blackrock
BLACKROCK VABM 10,087
Corduroy Mountain
Corduroy Basin
Limerock Spring
Yellow
Pass
White River
Canyon
Springs
Vanover Spring
Sawmill Spring
Duckwater Peak
Current Mountain VABM
Bull Creek
Burn Ranch
Spring
Black Point 6168
WHITE NYE
PINE CO
CO
DUCKWATER
DUCK WATER
R 56 E
VALLEY
GUIDE
Gravel Pit
Duckwater Agency
Springs
Old Collins Spr
Collins
401
487
633
634
622
632
402
061
432
645
642
011
646

4-362B
WHITE PINE SO.

LEGEND

ROADLESS AREA BDRY.	○
ORIGINAL ROADLESS AREA BDRY.	◌
ADJACENT ROADLESS AREA BDRY.	◌
EXISTING DEVELOPMENTS	▦
DELETIONS FROM ORIGINAL ROADLESS AREA	▨
ADDITIONS TO ORIGINAL ROADLESS AREA	▨
NON NATIONAL FOREST LAND	●

10/30/84

ROADLESS AREA WHITE PINE SOUTH, #362B - 11,158 ACRES

1. Description

The White Pine South roadless area on the Ely Ranger District lies some 35 air miles southwest of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded mountains in the western half and a mosaic of wooded and open shrub hills in the eastern half. Improved dirt roads circle all but the western portion of the area. The area was formerly part of unit #362 which has since been cut by roads.

Geologically, the area consists of Paleozoic sediments and Tertiary volcanics. Toporgaphy includes foothills and mountains to about 9,000 feet elevation. Drainages are ephemeral and meadows are few.

This area lies within the juniper-pinyon woodland (3130-21) and the western ponderosa forest (3130-10) ecosystems. Pinyon pine and juniper dominate the western portion of the area while the remainder offers a mosaic of wooded areas interspersed with open shrublands.

Currently, primary uses include livestock grazing (cattle - 54 AUMs) and recreational use (estimated 200 RVDs). The area provides summer and winter range for mule deer and chukar habitat. Some wild horse use occurs in the western portion of the area. Potential for hardrock minerals is moderate, and oil and gas occurrence is low. Oil and gas leases cover about 23% of the area or 2,500 acres.

2. Capability

The natural integrity and appearance are rated moderate because of unimproved roads and range improvements. Opportunities for solitude and primitive recreation are also moderate due to the ease of access and the nature of the terrain. There is a very low potential for challenging experiences. No threatened or endangered species are known to occur in the area.

Approximately 80 acres in the Mustang Spring area consisting of improved roads have been removed from the inventory.

3. Availability

Recreation use is limited to mule deer and upland game bird hunting. Winter sports use is very limited to nonexistent. Forage values for livestock are only poor to fair. Livestock fences and water developments are present within the area. Potential exists for further vegetation type conversions within the pinyon-juniper ecosystem.

Wood products include firewood, Christmas trees, post, and pine nuts, but harvest of these resources is minor. Hardrock minerals and oil and gas potential is rated as moderate and low, respectively. Archaeological sites exist within the area but have not been recorded.

All lands within the boundary are National Forest. According to past records, the fire potential is moderate throughout.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 180 miles north of the area. The roadless area is remote from major population centers; Ely is about 50 road miles away. Sicne the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored nonwilderness management. Comment from the nonlocal public was split between wilderness designation and nonwilderness management. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout reqeusts. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

The area was not recommended for wilderness in the Preferred Alternative.

A small amount of range sturctural and nonstructural improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. Hardrock minerals and oil and gas potentail is rated as moderate and low, respectively. Unscheduled mining developments have the most opportunity of reducing the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 362B ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		11238				11238			11238
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Mins (H)					11238				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	80		11238	11238			11238		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	11158							11238	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 362B ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J All but 80 acres are recommended for wilderness.	Management will remain at current level. Integrity & naturalness may be impacted by increased management activities.	Manage- will be at a lower level than present.	Same as D	Management emphasizes noncommodity resources.	Same as C	Same as D	Integrity & naturalness are moderate due to existing unimproved roads & range improvements.	Same as C
SOLITUDE	Same as J	Solitude may be impaired.	Same as J	Same as J	Same as J	Same as C	Same as J	Solitude is reduced due to easy access to the area & topography.	Same as C
PRIMITIVE RECREATION	Same as J	Same as solitude.	Same as J					Primitive recreation is same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J							Low potential for challenging experiences.	Same as J
SPECIAL FEATURES	None exist.	Same as J						None exist.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS

362B ROADLESS AREA

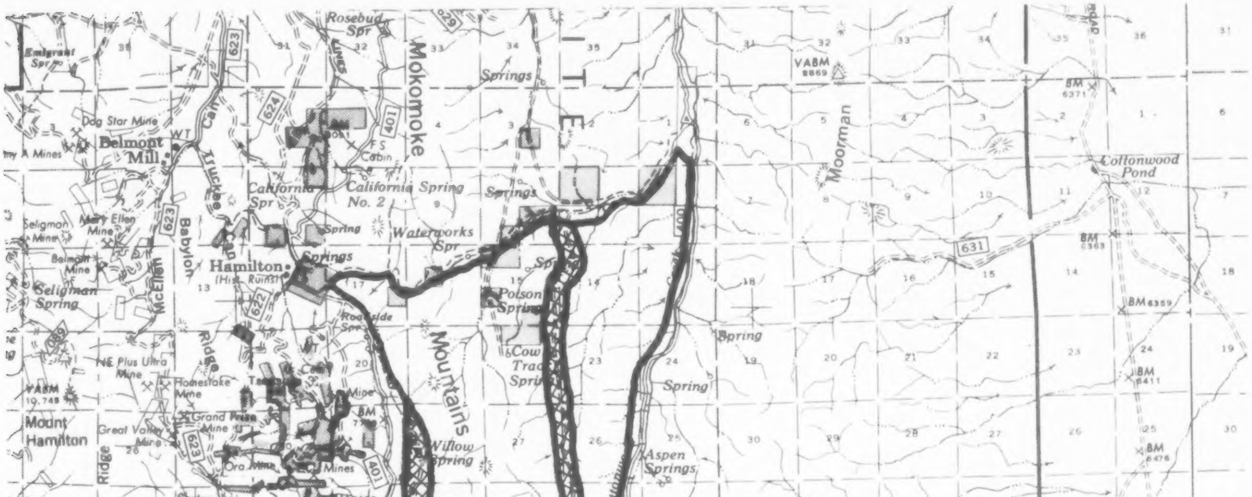
ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	11,158	0	0	0	0	0	0	11,238	0
Dispersed Rec.	MRVDS	.337	0	0	0	0	0	0	.339	0
NONWILDERNESS	ACRES	80	11,238	11,238	11,238	11,238	11,238	11,238	0	11,238
Dispersed Recreation										
Non-Motorized	MRVDS	0	.007	.007	.007	.007	.007	.007	0	.007
Motorized	MRVDS	.002	.332	.332	.332	.332	.332	.332	0	.332
Wildlife Nonstructural Habitat Improv	ACRES	0	0	0	0	0	0	0	0	0
WL/Fish Use	MWFUDS	.203	.201	.199	.199	.201	.201	.199	.204	.201
Livestock	MAUMS	.329	.336	.329	.329	.336	.336	.329	.329	.336
Fuelwood	MCORDS	0	.02	.02	.02	.02	.02	.02	0	.02
Xmas Trees	MTREES	0	.008	.008	.008	.008	.008	.008	0	.008
Sediment Yield	MTONS									
Soil Improvement	ACRES	.016	.020	.020	.020	.039	.020	.020	.015	.020
Minerals	CASES	1.39	1.39	1.16	1.55	1.39	1.16	1.39	1.39	1.39

ROADLESS AREA MOKOMOKE, #363

1. Description

The Mokomoke roadless area on the Ely Ranger District lies 30 miles west of Ely in east central Nevada. The unit's appearance from a distance is moderately steep mountain and high valley land containing brush and tree covered area.

The area is accessed by improved and unimproved dirt roads circling the area. Numerous unimproved four-wheel drive roads cut through the area. Two constructed roads now roughly divide the unit into three parts. None of these three areas are now of sufficient size to meet wilderness criteria, and the entire unit will be excluded from further analysis. The RARE II designation was for nonwilderness uses.


Mokomoke
Mountains
WHITE
STANDARD
Hamilton
Belmont Mill
Mount Hamilton
Shermantown
Eberhardt
Rosebud Spr
California Spring No. 2
Waterworks Spr
Poison Spring
Cow Track Spring
Willow Spring
Aspen Springs
Sixmile Spring
Ephsum Spring
Stone Cabin Spring
Shellback Spring
Sage Hen Spring
Indian Garden Spring
Lampson Spring
Cottonwood Pond
Limestone Peak
Butte Spring
Circle Wash Reservoir
Circle Wash Spring
Mud Spring
Deadman Res
Moorman
Hayden Can
North Sixmile Wash
South Sixmile Wash
Shellback Ridge
Cathedral
Pogonip
Seligman Spring
Great Valley Mine
Homestake Mine
Grand Prize Mine
Dog Star Mine
Mary Ellen Mine
Ward Mine
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631
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636
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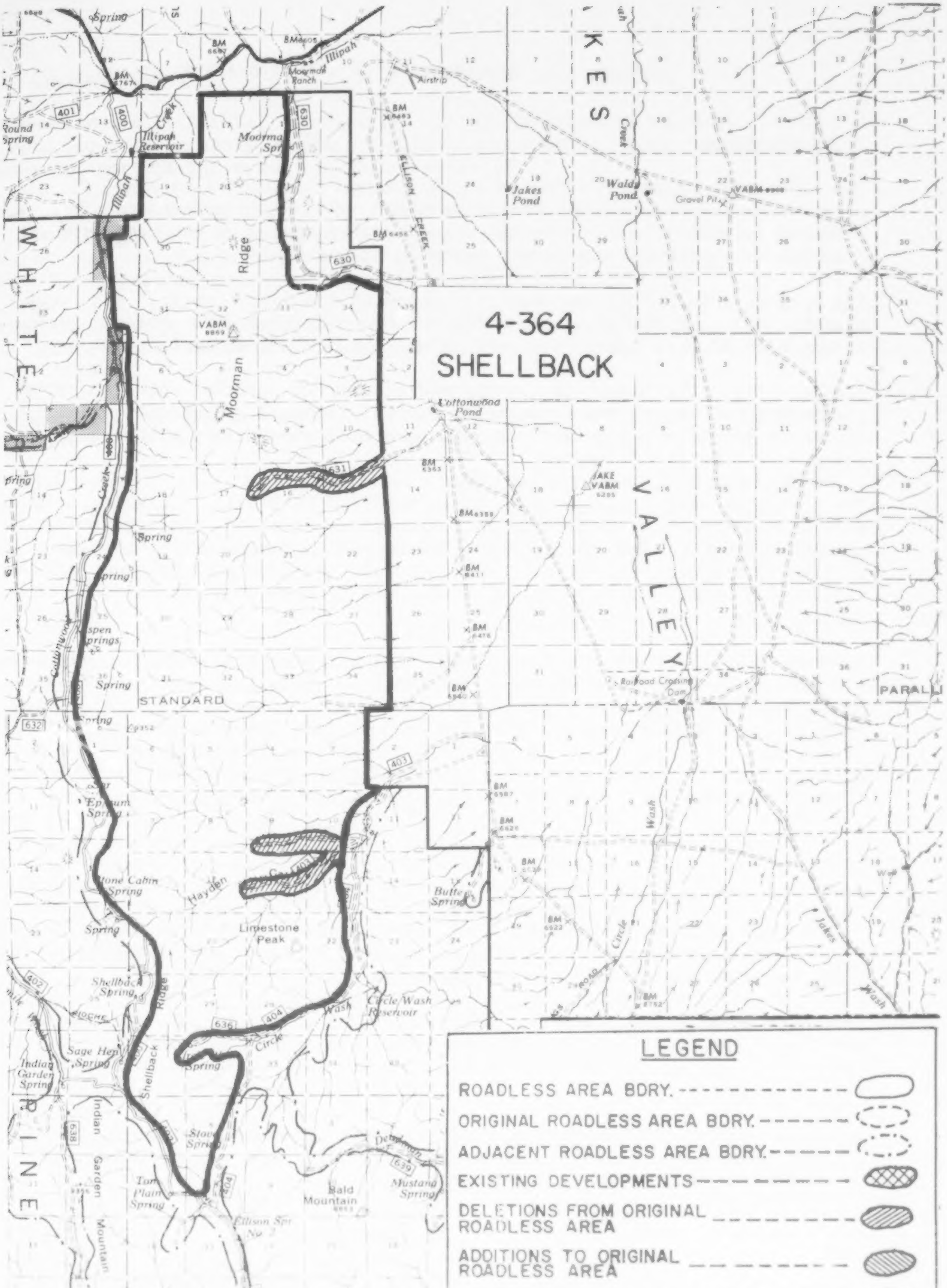

4-364
SHELLBACK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
WHITE PINE
JAKES VALLEY
Illipah Creek
Illipah Reservoir
Moorman Ranch
Moorman Spr
Moorman Ridge
Ellison Creek
Jakes Pond
Walde Pond
Gravel Pit
Airstrip
Cottonwood Pond
Railroad Crossing Dam
Round Spring
Cottonwood Creek
Aspen Springs
Standard
Epsom Spring
Bone Cabin Spring
Hayden
Limestone Peak
Butte Spring
Shellback Spring
Shellback Ridge
Sage Hen Spring
Indian Garden Spring
Indian Garden Mountain
Stove Spring
Tom Plain Spring
Ellison Spr No. 2
Bald Mountain
Mustang Spring
Circle Wash Reservoir
Circle Wash
Jakes Wash
Circle Road
Parall
Ine
400
401
402
403
404
630
631
632
636
638
639

ROADLESS AREA SHELLBACK, #364 - 78,330 ACRES

1. Description

The Shellback Roadless Area on the Ely Ranger District lies some 25 air miles west of Ely in east central Nevada. The unit's appearance from a distance is that of a north-south ridge, heavily wooded on the east side and a mosaic of wooded and open shrub areas on the west side.

The area is accessed by improved dirt roads to the east, south, and west; highway 50 provides access from the north. Improved dirt roads, missed during RARE II, are within the unit as well as unimproved dirt roads.

Geologically, the area is mostly sedimentary in origin and limestones predominate. Some areas contain basalt flows. Topography includes mountains to 9,300 feet elevation. No perennial streams are within the area and springs are few in number.

The area lies within the juniper-pinyon woodland (3130-21) ecosystem. The west half of the unit is covered by pinyon pine, juniper, and some mountain mahogany trees. The eastern and southern most portions of the area have a mosaic of vegetation types, with pinyon and juniper covered slopes alternating with open shrubland. Two vegetation type conversions for livestock have been completed.

Currently, primary uses include livestock grazing (cattle - 1236 AUMs) and limited recreation use (estimated 300 RVDs). The entire area has moderate potential for hardrock minerals. Oil and gas potential is rated low although one exploratory oil well has been drilled in the southeast portion of the unit. About 95% or 38,209 acres are under oil and gas leases or are pending leases. Mule deer summer range and sage grouse habitat is located within the area.

2. Capability

Natural integrity and appearance of the area are both rated moderate primarily due to past grazing impacts and existing range improvements. Impacts of man which cannot be excluded include vegetative manipulation areas and the presence of nonindigenous plants. There are also about 12 miles of fence and numerous water developments.

The opportunities for solitude and primitive recreation are both moderate because of the distance from the core to the area's perimeter. There is a very low potential for challenging experiences. No threatened or endangered species are known to occur in the area.

Boundary modifications were made on three road system. They were both parts of Hayden Canyon and Cottonwood Canyon. In all three cases improved roads were missed during the original inventory.

3. Availability

Recreation use is limited to mule deer and upland gamebird hunting. Winter sports use is probably very limited to nonexistent. Some opportunities exist to increase dispersed recreation activity.

The area is grazed by cattle and forage values range all the way from poor in some areas to good in reseeded areas. Some important wildlife forage values for deer and sage grouse exist within the area. Livestock fences, water developments, and reseedings are located within the area.

Woodland products include Christmas trees, fuelwood, posts, and pine nuts, but harvests are of low intensity. An opportunity exists to increase these activities.

Although oil and gas potential is low, active exploration continues in the area and additional wells may be proposed in the future.

Archaeological sites have been noted within the area and additional sites probably occur.

All lands within the boundary are National Forest. Forest records indicate that fire potential is moderate.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 160 miles north of the area. The Shellback roadless area is remote from major population centers; Ely is about 35 road miles away. Sicne the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The Shellback roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored nonwilderness management. Comments from the nonlocal public were about equally split between wilderness and nonwilderness. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

READEX FICHE

Structural and non-structural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. The entire area has moderate potential for hardrock minerals. Structural range improvements coupled with unscheduled ORV use and mining developments will reduce the amount of wilderness available for future consideration. The long narrow setting of the area makes it susceptible to dissecting from new road construction rendering it not available for wilderness consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

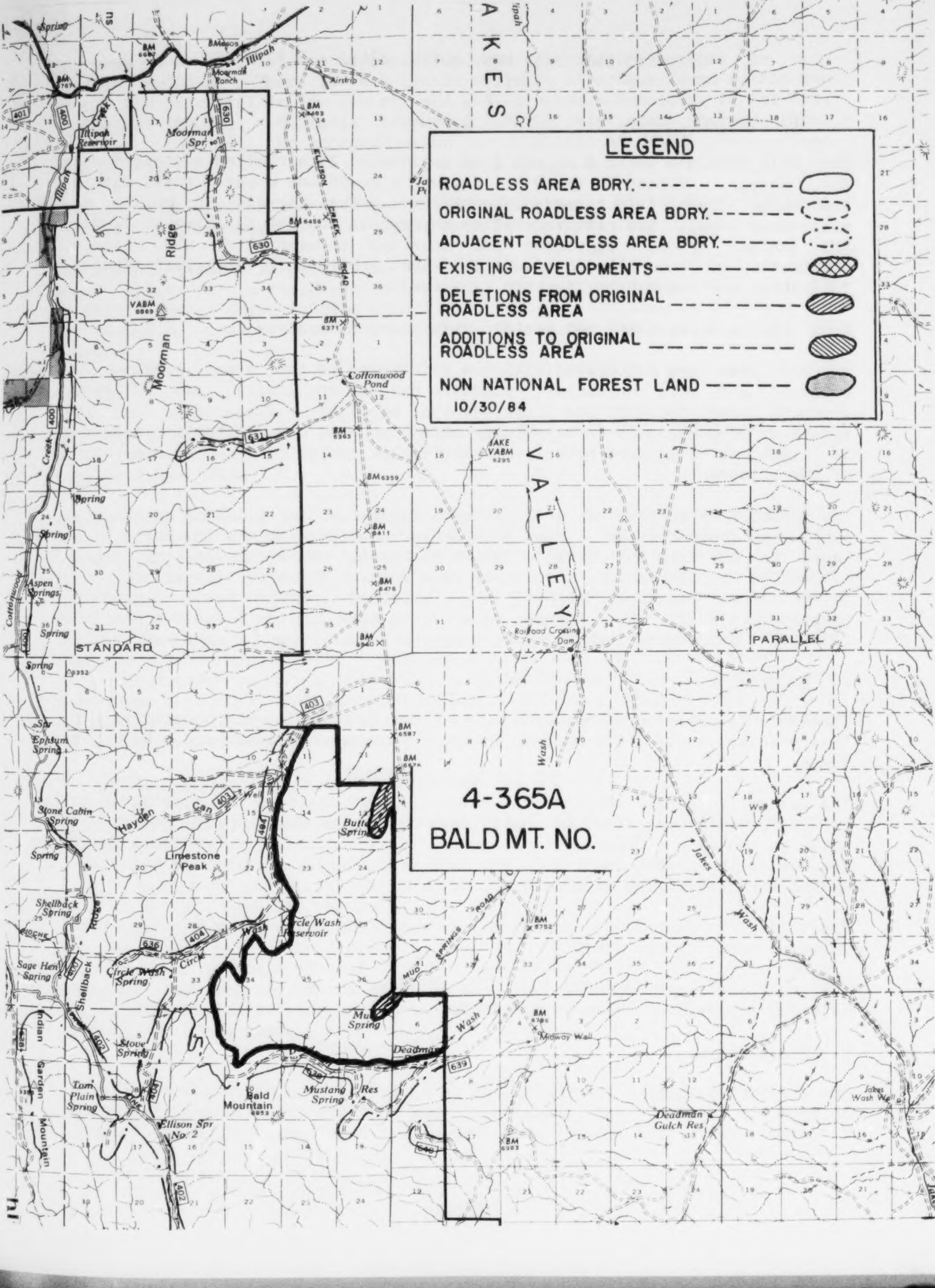
364 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		79291				79291			79291
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Motdisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					79291				
All low	961		79291	79291			79291		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	78330							79291	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	98 percent of the area is recommended for wilderness. Integrity & naturalness same as J.	Management will remain at at present level. Increased management activities may reduce quality of of integrity & naturalness.	Management will be at a level lower than present. Same as J	Same as D	Manage- will emphasize noncommodity resources. Same as J	Same as C	Same as D	Integrity & natural- are rated moderate due to past grazing impacts & existing range improvements.	Same as C
SOLITUDE	Same as J	May have further impacts on solitude.	Same as J	Same as J	Same as J	Same as C	Same as C	The narrow setting of the area reduces the solitude of the area.	Same as C
PRIMITIVE RECREATION	Same as J	Same as solitude.	Same as J	Same as J	Same as J	Same as C	Same as J	Same as solitude.	Same as C
CHALLENGING EXPERIENCES	Same as J							None exists.	Same as J
SPECIAL FEATURES	Same as J							None exists.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 364 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	78,330	-	-	-	-	-	-	78,291	-
Dispersed Rec	MRVDS	2.36	-	-	-	-	-	-	2.39	-
NONWILDERNESS	ACRES	961	78,291	79,291	79,291	79,291	79,291	79,291	-	79,291
Dispersed Recreation										
Non-Motorized	MRVDS	-	.05	.05	.05	.05	.05	.05	-	.05
Motorized	MRVDS	.028	2.34	2.34	2.34	2.34	2.34	2.34	-	2.34
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	1.44	1.42	1.40	1.40	1.42	1.42	1.40	1.44	1.42
Livestock	MAUMS	2.32	2.37	2.32	2.32	2.37	2.37	2.32	2.32	2.37
Fuelwood	MCORDS	.002	.136	.136	.136	.136	.136	.136	-	.136
Xmas Trees	MTREES	-	.05	.05	.05	.05	.05	.05	-	.05
Sediment Yield	MTONS									
Soil Improvement	ACRES	.108	.107	.137	.137	.273	.107	.137	.107	.107
Minerals	CASES	9.80	9.83	8.19	8.19	10.92	9.83	8.19	9.83	9.83


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-365A
BALD MT. NO.
JAKES VALLEY
STANDARD
PARALLEL
Illipah Reservoir
Moorman Ranch
Moorman Spr
Moorman Ridge
Ellison Creek Road
Cottonwood Pond
Jake VABM 6295
Railroad Crossing Dam
Aspen Springs
Epsom Spring
Stone Cabin Spring
Hayden Can
Limestone Peak
Butte Spring
Shellback Spring
Shellback Ridge
Sage Hen Spring
Circle Wash Spring
Circle Wash Reservoir
Mud Springs Road
Mud Spring
Deadman
Stove Spring
Tom Plain Spring
Indian Garden Mountain
Bald Mountain 6953
Mustang Spring
Res
Ellison Spr No. 2
Midway Well
Deadman Gulch Res
Jakes Wash
Jakes Wash Well
Airstrip

ROADLESS AREA BALD MTN. NORTH, #365A - 8,403 ACRES

1. Description

The Bald Mountain North Roadless Area is located 25 air miles southwest of Ely, Nevada. Access is via U.S. Highway 6 or 50 and unpaved roads within the White Pine divison and Jakes Valley. The terrain is gentle to moderately steep. Dominant vegetation throughout most of the area is pinyon and juniper trees. Sagebrush and mountain mahogany are also common components of the plant community. This area was formerly part of unit #365 which has since been bisected by a road.

Rock types are Paleozoic sediments and Tertiary intrusives.

Current uses are associated with the vegetation of the area; grazing by domestic and wild ungulates, wildlife habitat and limited use of wood products associated with the pinyon-juniper woodland. The area is used by mule deer predominantly in the winter with some fall use. Livestock grazing is light due to limited water availability and isolation from the remainder of the allotment.

The appearance of roadless area #365A is influenced to a major extent by pinyon and juniper trees. Most notable surroundings include the White Pine range to the west and Jakes Valley to the east. Wildlife is the major attraction to the area, especially mule deer. The area lies within the Intermountain sagebrush/juniper-pinyon woodland, Great Basin sagebrush ecosystem (3130-21, 32). Current uses of the area include livestock grazing (132 AUMs) and recreation (50 RVDs).

2. Capability

There are no sharp topographic features that would define the boundaries of this roadless area. The area is bounded by unimproved roads and a barbwire fence.

The natural integrity and apparent naturalness of the area are considered to be low because vegetation manipulation, unimproved roads, and reservoirs occur in the area. Opportunities for solitude, and primitive recreation are low due to the area's small size and lack of screening. Very low potential exists for challenging experiences.

There are no threatened, endangered, or sensitive wildlife or plant species known to occur in the area.

The roadless area boundary has been changed at Butte and Mud Springs deleting improved road corridors overlooked during the initial inventory.

3. Availability

The greatest potential for recreation is an increase in dispersed recreation related to hunting and trapping. As wildlife populations increase, dispersed recreation could also increase. Development of water could increase deer populations by expanding seasonal ranges but only in very limited amounts. There is very little suitable livestock range within the area. The potential is low for oil and gas occurrence according to the U.S. Geological Survey. Cultural resources undoubtedly occur around water sources; however, no concentration or significant finds have been identified.

The unit has moderate potential for the occurrence of economic mineral deposits and approximately 50% of the area is claimed.

The potential for a large fire is high due to the density of fine fuels that would allow for a rapid rate of spread. Fire suppression would not be difficult except under extreme conditions. Insect and disease problems are not common or widespread within the area. No private lands exist within the boundary.

4. Need

The nearest wilderness area in Nevada is the Jarbidge Wilderness area approximately 160 miles from Bald Mountain. Las Vegas, Nevada, is the nearest large city.

During RARE II, local public input stongly favored nonwilderness management. Nonlocal input slightly favored nonwilderness. Interest by organized wilderness proponent groups has not been high. There are no unique ecotypic featured about roadless area #365A that would warrant wilderness classification. The RARE II allocation was nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative.

A small amount of structural and non-structural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. The area has moderate potential for the occurrence of economic mineral deposits and approximately 50% of the area is claimed. Unscheduled mining activity will have the greatest impact on the amount of wilderness available for future consideration. The small size of the area will aggravate this problem.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

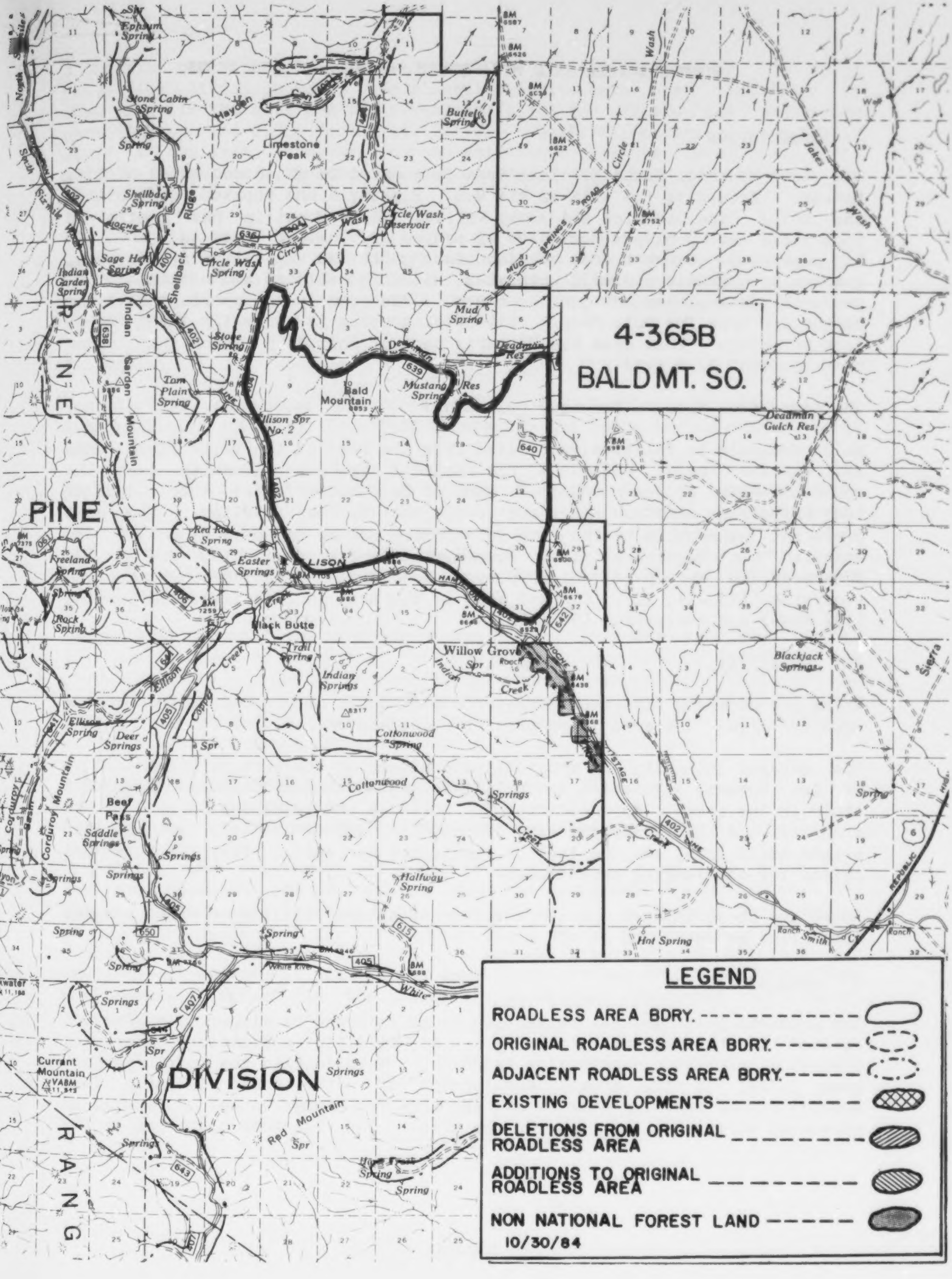
365A ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		8678				8678			8678
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp.Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Mins (H)					8678				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	275		8678	8678			8678		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	8403							8678	

<table>
<tr><th rowspan="2">WILDERNESS CHARACTERISTICS</th><th colspan="9">FOREST PLAN ALTERNATIVE</th></tr>
<tr><th>A</th><th>C</th><th>D</th><th>E</th><th>F</th><th>H</th><th>I</th><th>J</th><th>K</th></tr>
<tr><td>INTEGRITY/ NATURALNESS</td><td>All but 275 acres are recommended for wilderness Same as J.</td><td>Management will remain at current level. Integrity & naturalness will remain the same.</td><td>Managment will be at a level lower than present. Integrity & naturalness the same as C</td><td>Same as D</td><td>Management emphasizes non-commodity resources. Integrity & naturalness will remain the same.</td><td>Same as C</td><td>Same as D</td><td>Integrity & naturalness are low due to vegetation manipulation, unimproved dirt roads, & reservoirs that occur in the area.</td><td>Same as C</td></tr>
<tr><td>SOLITUDE</td><td>Same as J</td><td>Solitude will remain at a low level.</td><td>Same as C</td><td>Same as C</td><td>Same as J</td><td>Same as C</td><td>Same as C</td><td>Opportunities for solitude low.</td><td>Same as C</td></tr>
<tr><td>PRIMITIVE RECREATION</td><td>Same as J</td><td>Same as solitude.</td><td>Same as C</td><td>Same as C</td><td>Same as J</td><td>Same as C</td><td>Same as C</td><td>Same as solitude.</td><td>Same as C</td></tr>
<tr><td>CHALLENGING EXPERIENCES</td><td colspan="7">Same as J</td><td>None exist.</td><td>Same as J</td></tr>
<tr><td>SPECIAL FEATURES</td><td colspan="7">Same as J</td><td>None exist.</td><td>Same as J</td></tr>
</table>

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 365A ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	8,403	-	-	-	-	-	-	8,678	-
Dispersed Rec	MRVDS	2.54	-	-	-	-	-	-	.262	-
NONWILDERNESS	ACRES	275	8,678	8,678	8,678	8,678	8,678	8,678	-	8,678
Dispersed Recreation										
Non-Motorized	MRVDS	-	.005	.005	.005	.005	.005	.005	-	.005
Motorized	MRVDS	.008	.257	.257	.257	.257	.257	.257	-	.257
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.157	.156	.154	.154	.157	.156	.154	.157	.156
Livestock	MAUMS	.254	.259	.254	.254	.259	.259	.254	.254	.259
Fuelwood	MCORDS	.001	.016	.016	.016	.016	.016	.016	-	.016
Xmas Trees	MTREES	-	.006	.006	.006	.006	.006	.006	-	.006
Sediment Yield	MTONS									
Soil Improvement	ACRES	.012	.015	.015	.030	.015	.015	.012	.015	.015
Minerals	CASES	1.07	1.08	.90	.90	1.20	1.08	.90	1.08	1.08


PINE
RANGE
DIVISION
Bald Mountain
Limestone Peak
Circle Wash Reservoir
Mud Spring
Deadman Res
Mustang Spring Res
Ellison Spr No. 2
Red Rock Spring
Easter Springs
Black Butte
Willow Grove
Indian Springs
Cottonwood Spring
Halfway Spring
Blackjack Springs
Deadman Gulch Res
Hot Spring
Currant Mountain
Red Mountain
White River
Shellback Ridge
Indian Garden Mountain
Corduroy Mountain
Beef Pass
Saddle Springs
Stone Cabin Spring
Epsum Spring
Shellback Spring
Sage Hen Spring
Indian Garden Spring
Stone Spring
Tom Plain Spring
Freeland Spring
Rock Spring
Ellison Spring
Deer Springs
Trail Spring
Butte Spring
Jakes Wash
Circle Wash
Mud Springs Road
Smith Cr
Sierra
Republic
6
402
400
405
407
636
638
639
640
642
643
650
613

4-365B
BALD MT. SO.

LEGEND

ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND

10/30/84

ROADLESS AREA BALD MTN. SOUTH, #365B - 11,776 ACRES

1. Description

The Bald Mountain South Roadless Area is located 25 miles southwest of Ely, Nevada. Access to the area is via U.S. Highway 6 and unpaved roads within the White Pine Division and Jakes Valley. Bald Mountain has gentle to moderately steep slopes dominated by pinyon and juniper trees and mountain big sagebrush. Current uses are associated with the vegetation of the area; grazing by domestic and wild ungulates, wildlife habitat, and utilization of products from pinyon and juniper trees. The area is an important fall and winter use area for mule deer. Livestock grazing is currently light due to lack of water. This area was formerly part of unit #365 which has since been bisected by a road.

The major rock type is Tertiary volcanics.

Bald Mountain is relatively isolated from the rest of the White Pine range and appears "bald" because of the dominant sagebrush community over the upper one third of the mountain. West of Bald Mountain are other ridges of the White Pine mountain range and to the east is Jakes Valley. The most prevalent attraction to the area is wildlife use of the pinyon-juniper and mountian big sagebrush plant communities. The area lies within the Intermountain sagebrush/juniper-pinyon woodland, Great Basin sagebrush ecosystem (3130-21, 32). Current uses of the area include livestock grazing (132 AUMs) and recreation (50 RVDs).

2. Capability

There are no sharp topographic features that would define boundaries of this roadless area. The area is bounded by roads and barbed wire fence.

The natural integrity and apparent naturalness of the area is considered to be low because vegetation manipulation, unimproved roads and reservoirs occur in the area. Opportunities for solitude and primitive recreation are moderate and low, respectively, due to the ease of vehicle access, the area's small size, and the lack of vegetative screening. Very low potential exists for challenging experiences.

There are no threatened, endangered, or sensitive wildlife or plant species identified as occurring in the area.

3. Availability

The greatest potential for recreation is an increase in dispersed recreation related to hunting and trapping. As wildlife populations increase, dispersed recreation could also increase. Mule deer is the most important game animal in the area. Development of water could increase deer populations by enabling deer to use the area for summer range. Perennial or ephemeral streams do not occur in the area. The livestock operation on the allotment containing Bald Mountain could be greatly improved by developing water for livestock use. No mineral deposits have been identified as occurring in the area and the potential is low for oil and gas occurrence according to the U.S. Geological Survey. Cultural resources undoubtedly occur in the area; however, no concentrations have been identified. The potential for the occurrence of economic deposits of hard rock minerals is low.

The potential for a large fire is high due to the density of fine fuels that would allow for a rapid rate of spread. Conversely, suppression would not be difficult except under extreme conditons. Insect and disease porblems are not common or widespread within the area. No private lands exist within the boundary.

4. Need

The nearest wilderness area in Nevada is the Jarbidge Wilderness Area approximately 160 miles from Bald Mountain; Las Vegas is the nearest large city.

During RARE II, local public input strongly favored nonwilderness management. Nonlocal public input also slightly favored nonwilderness. Interest by organized wilderness proponent groups has not been high. There are no unique ecotypic features about the Bald Mountain area that would warrant wilderness classification. The RARE II allocation was nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses ar each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternaitve.

Structural and non-structural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will icnrease. The area has not been withdrawn from mineral entry. The potential for the occurrence of economic deposits of hardrock minerals is low. The same is true for the potential of oil and gas resources. Structural range improvements and increased ORV use will have the greatest impact on the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 365B ROADLESS AREA

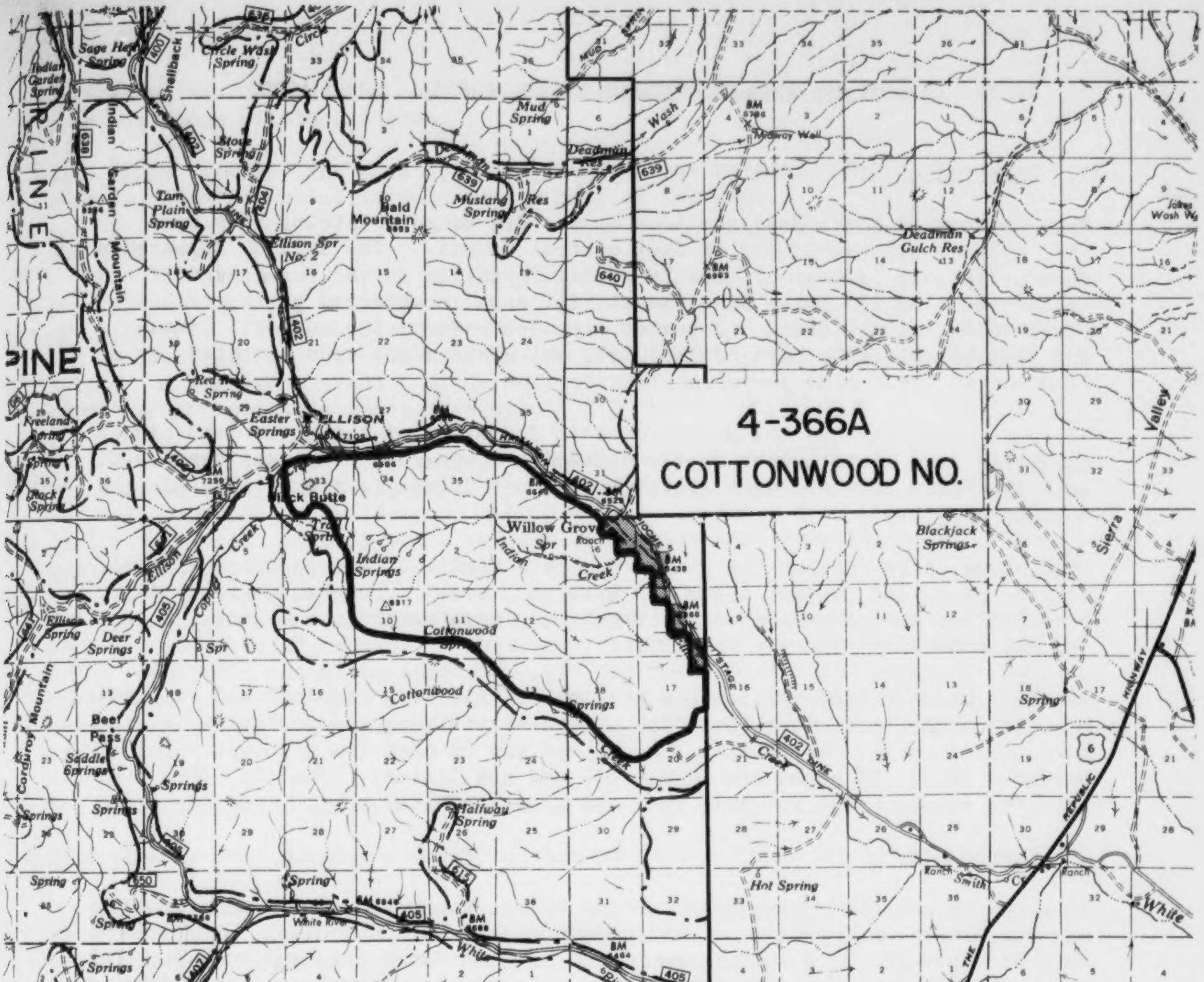
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		11776				11776			11776
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/ Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					11776				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			11776	11776			11776		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	11776							11776	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 365B ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will remain at current level. Integrity & naturalness will remain low.	Management will be at a lower level than present. Same as J.	Same as D	Management emphasizes noncommodity resources. Same as J.	Same as C	Same as D	Integrity & naturalness are low due to vegetation manipulation, unimproved dirt roads & reservoirs that occur on the area.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunities for solitude are low.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS **365B ROADLESS AREA**

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	11,776	-	-	-	-	-	-	11,776	-
Dispersed Rec.	MRVDS	.355	-	-	-	-	-	-	.355	-
NONWILDERNESS	ACRES	-	11,776	11,776	11,776	11,776	11,776	11,776	-	11,776
Dispersed Recreation										
Non-Motorized	MRVDS	-	.007	.007	.007	.007	.007	.007	-	.007
Motorized	MRVDS	-	.348	.348	.348	.348	.348	.348	-	.348
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.213	.210	.208	.210	.210	.208	.213	.210	.210
Livestock	MAUMS	.345	.352	.345	.345	.352	.352	.345	.345	.352
Fuelwood	MCORDS	-	.021	.021	.021	.021	.021	.021	-	.021
Xmas Trees	MTREES	-	.008	.008	.008	.008	.008	.008	-	.008
Sediment Yield	MTONS									
Soil Improvement	ACRES	.016	.021	.021	.021	.444	.021	.021	.021	.016
Minerals	CASES	1.46	1.46	1.12	1.62	1.46	1.12	1.46	1.46	1.46


PINE
RANGE
DIVISION
ELLISON
Black Butte
Willow Grove
Cottonwood Springs
Indian Springs
Bald Mountain
Deadman Res
Mustang Res
Mud Spring
Deadman Gulch Res
Blackjack Springs
Sierra Valley
Hot Spring
Smith Cr
White River
Red Mountain
Currant Mountain
Beef Pass
Halfway Spring
Hidden Spring
Summit Spring
Microwave Station
Reservoir
402
405
616
639
640
6
THE REPUBLIC HIGHWAY
STAGE

4-366A
COTTONWOOD NO.

LEGEND

ROADLESS AREA BDRY. ------------ ○
ORIGINAL ROADLESS AREA BDRY. ------ ○
ADJACENT ROADLESS AREA BDRY. ------ ○
EXISTING DEVELOPMENTS ------------ ▩
DELETIONS FROM ORIGINAL ROADLESS AREA ------------ ▨
ADDITIONS TO ORIGINAL ROADLESS AREA ------------ ▧
NON NATIONAL FOREST LAND ------ ●

10/30/84

ROADLESS AREA COTTONWOOD NORTH, #366A - 8,858 ACRES

1. Description

The Cottonwood North Roadless Area on the Ely Ranger District lies some 30 air miles southwest of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded foothills in the foreground of the taller peaks on the White Pine Range. The area is accessed by improved dirt roads circling the area. A barbed wire fence forms the eastern boundary. The area was formerly part of unit #366 which has since been bisected by a road.

Volcanic activity was the major force in formation of the area, and cinder cones and lava flows are evident everywhere. Topography includes benchlands and foothills to 8,400 feet elevation. Most drainages are ephemeral and meadows are limited.

This area lies within the pinyon-juniper woodland ecosystem (3130-21). Pinyon pine and juniper trees dominate the area. Sagebrush-grass types predominate as the understory. Some areas have mountain mahogany, aspen, and cottonwood trees.

Primary uses include livestock grazing (cattle - 19 AUM's) and limited recreation use (estimated 50 RVD's). The entire area has low potential for hardrock minerals. Potential for oil and gas is also low although about 65 percent or 5,758 acres are within oil and gas leases. Most of the area provides summer range for mule deer and grouse habitat.

2. Capability

Although topographic boundaries do not exist, improved dirt roads roughly bounding the area provide a definable boundary for potential wilderness. Natural integrity and appearance of the area is rated only moderate due to the nature of the terrain, ease of access, and range livestock improvements.

Opportunities for solitude are high, but for primitive recreation, only moderate because of the area's small size and lack of challenging features. Special features are found in the volcanic geologic formations. No threatened or endangered species are known to occur in the area.

3. Availability

Recreation use is limited to mule deer and upland gamebird hunting. Winter sports use is probably very limited to nonexistent.

The area is grazed by cattle with generally poor grazing values. Livestock fences and water developments are located within the area. Potential exists for type conversions within the pinyon-juniper ecosystem.

Timber resources include the harvest of fuelwood, Christmas trees, posts, and pinenuts with an opportunity to increase these activities.

Archaeological sites have been recorded near the area and additional sites probably occur within the area.

All lands within the area boundary are National Forest. Based on past records, fire potential is moderate in most of the area.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 170 miles north of the area. The roadless area is remote from major poplulation centers; Ely is about 35 road miles away from the area. Since the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored nonwilderness management. Comments from the nonlocal public were about equally split between wilderness and nonwilderness. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

A small amount of structural and nonstructural range improvements, as well as harvesting woodland products, are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. The area has a low potential for both hardrock minerals and oil and gas. Since only a minimal amount of range structural improvements are planned, and because of the area's low mineral potential, most of the area will be available for future wilderness consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **366A ROADLESS AREA**

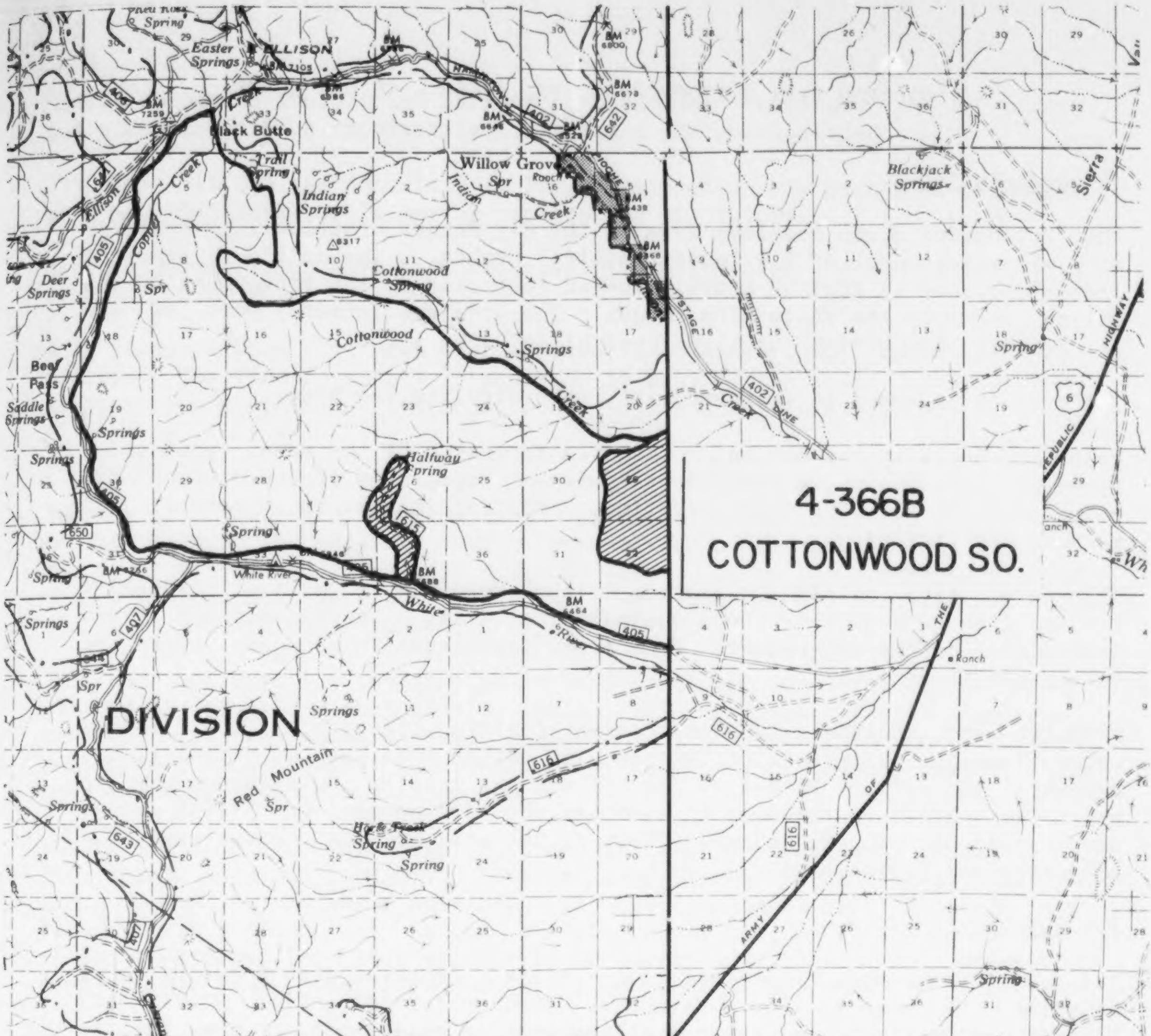
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		8858				8858			8858
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					8858				
All low			8858	8858			8858		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	8858							8858	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 366A ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will remain at current level. Integrity & naturalness same as J.	Management will be at a level lower than present. Same as J.	Same as D	Management emphasizes noncommodity resources. Same as J.	Same as C	Same as D	Integrity & naturalness are as moderate due to the topography, ease of access & range improvements.	Same as C
SOLITUDE	Same as J	Solitude same as J.	—	—	Same as J	—	—	Solitude is considered to be high.	Same as J
PRIMITIVE RECREATION	Same as J	Primitive recreation same as J.	—	—	Same as J	—	—	Primitive recreation is moderate.	Same as J
CHALLENGING EXPERIENCES	—	—	—	—	Same as J	—	—	None exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J No impact.	Same as J	Same as J	Same as J	Same as C	Same as J	Volcanic formations exist on the area.	Same as C

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS **366A ROADLESS AREA**

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	8,858	-	-	-	-	-	-	8,858	-
Dispersed Rec	MRVDS	.267	-	-	-	-	-	-	.267	-
NONWILDERNESS	ACRES	-	8,858	8,858	8,858	8,858	8,858	8,858	-	8,858
Dispersed Recreation										
Non-Motorized	MRVDS	-	.005	.005	.005	.005	.005	.005	-	.005
Motorized	MRVDS	-	.262	.262	.262	.262	.262	.262	-	.262
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.161	.159	.157	.157	.159	.159	.157	.161	.159
Livestock	MAUMS	.259	.265	.259	.259	.259	.265	.259	.259	.265
Fuelwood	MCORDS	-	.017	.017	.017	.017	.017	.017	-	.017
Xmas Trees	MTREES	-	.006	.006	.006	.006	.006	.006	-	.006
Sediment Yield	MTONS									
Soil Improvement	ACRES	.012	.015	.015	.015	.030	.015	.015	.012	.015
Minerals	CASES	1.10	1.10	.915	.915	1.22	1.10	.915	1.10	1.10


Easter Springs
Ellison
Black Butte
Trail Spring
Indian Springs
Willow Grove Spr
Indian Creek
Cottonwood Spring
Cottonwood
Springs
Deer Springs
Beef Pass
Saddle Springs
Halfway Spring
White River
Blackjack Springs
Sierra
Stage Dive
Creek
Republic Highway
DIVISION
Red Mountain Spr
Horse Trail Spring
Spring
Army of the Grand
Hidden Spring
Secret Spring
Microwave Station
Summit Spring
Reservoir
Gold Point Mine
Hy Maint Station
Currant Creek
Grove Pit
Ranch
WILHOITES VABM 8309
STANDARD
HORSE

4-366B
COTTONWOOD SO.

LEGEND

ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND

10/30/84

ROADLESS AREA COTTONWOOD SOUTH, #366B - 16,056 ACRES

1. Description

The Cottonwood South Roadless Area on the Ely Ranger District lies some 30 air miles southwest of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded foothills in the foreground of the taller peaks on the White Pine Range. The area was formerly part of the larger unit, #366 which has since been bisected by a road.

The area is accessed by improved dirt roads circling the area.

Volcanic activity was the major force in formation of the area, and cinder cones and lava flows are evident everywhere. Topography includes benchlands and foothills to 9,000 feet elevation. Most drainages are ephemeral and meadows are limited.

This area lies within the pinyon-juniper woodland ecosystem (3130-21). Pinyon pine and juniper trees dominate the area. Sagebrush-grass types predominate as the understory. Some areas have mountain mahogany, aspen and cottonwood trees.

Primary uses include livestock grazing (cattle - 57 AUM's) and limited recreation use (estimated 100 RVD's). The entire area has low potential for hardrock minerals. Potential for oil and gas is also low although one oil well was drilled in the area in 1980 and about 80 percent or 13,845 acres are within oil and gas leases. Most of the area provides summer range for mule deer and grouse habitat.

2. Capability

Although topographic boundaries do not exist, improved dirt roads roughly bounding the area provide a definable boundary for potential wilderness. Natural integrity and appearance of the area is rated moderate due to the nature of the terrain, easy access, and presence of range improvements.

Opportunities for solitude are high, but for primitive recreation only moderate because of the area's small size and lack of challenging features. Special features are found in the volcanic geologic formations. No threatened or endangered species are known to occur in the area. The size of the original area has been reduced due to pinyon-juniper chainings, crested wheat seedings, and an improved road.

3. Availability

Recreation use is limited to mule deer and upland gamebird hunting. Winter sports use is probably very limited to nonexistent.

The area is grazed by cattle with generally poor grazing values. Livestock fences and water developments are located within the area. Potential exists for more type conversions within the pinyon-juniper ecosystem.

Timber resources include the harvest of fuelwood, Christmas trees, posts, and pinenuts with an opportunity to increase these activities.

Although oil and gas potential is low, exploration has been active in the area and additional wells may be proposed in the future.

Archaeological sites have been recorded within the area and additional sites probably occur.

All lands within the area boundary are National Forest. Based on past records, the fire potential is moderate in most of the area. Blister rust is attacking pinyon pine the area; no control measures are planned.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 175 miles north of the area. The roadless area is remote from major population centers; Ely is about 35 road miles away from the area. Since the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored nonwilderness management. Comments from the nonlocal public were about equally split between wilderness and nonwilderness. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness under the Preferred Alternative.

Some structural and nonstructural range improvements, as well as harvesting of woodland products, are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. The area has a low potential for hardrock minerals. Even though the area is considered to have a low potential for oil and gas numerous leases exist on the area. Drilling for oil and gas will have the greatest impact on the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

366B ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		17306				17306			17306
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					17306				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	1250		17306	17306			17306		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	16056							17306	

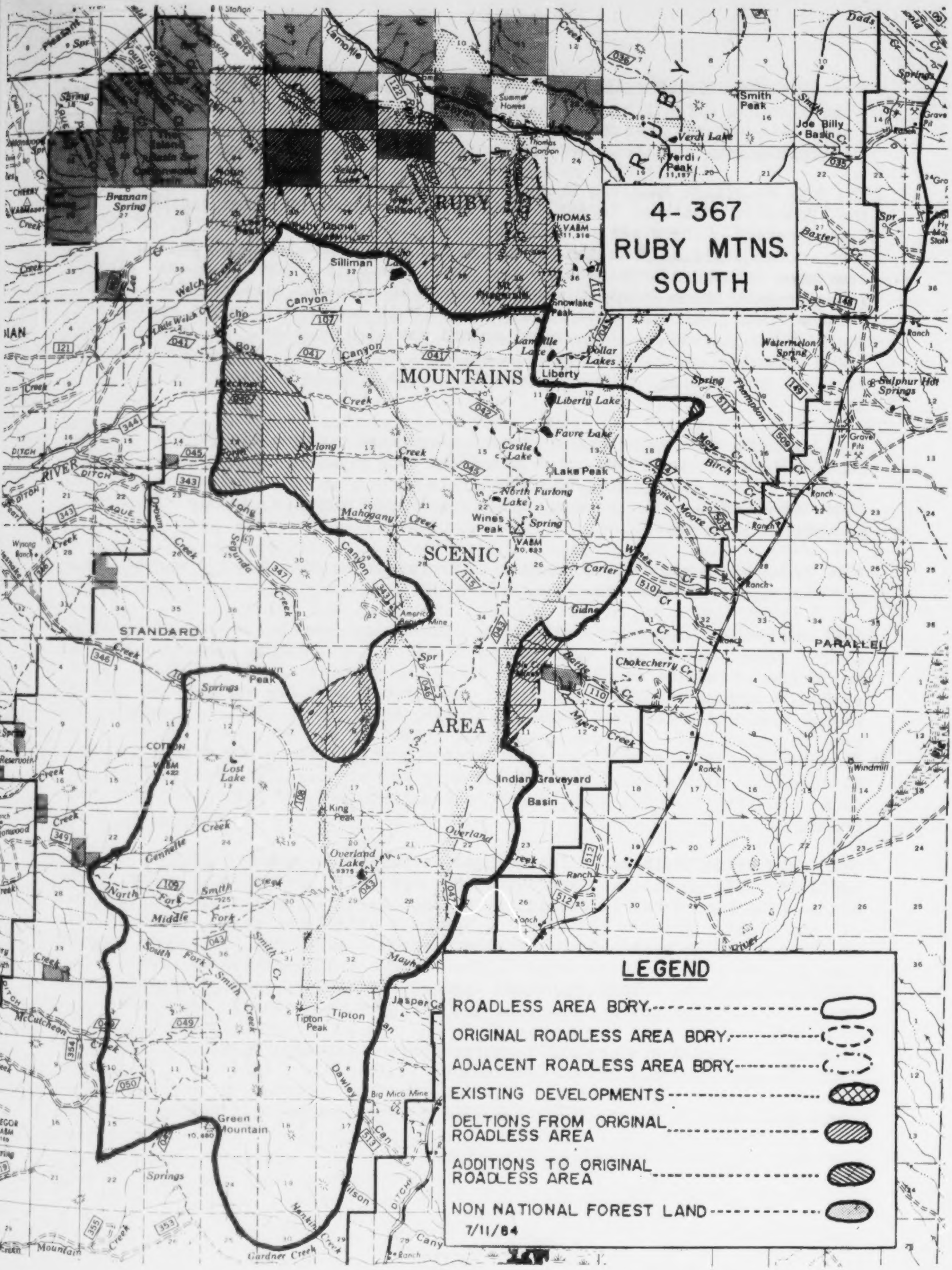
TABLE B—IMPACTS ON WILDERNESS CHARACTER

366B ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	16,056 ac will be recommended for wilderness. Same as J.	Management will remain at current level. Integrity & naturalness may be impacted.	Management at a level lower than present. Same as J.	Same as D	Management will em- noncommodity resources. Same as J.	Same as C	Same as D	Integrity & naturalness are rated as moderate due to topography, access & existing range improvements.	Same as C
SOLITUDE	Same as J Quality of solitude may be reduced on area not going into wilderness.	Quality of solitude may be reduced.	Same as A	Same as A	Same as J	Same as C	Same as A	Solitude is considered ed to be high.	Same as C
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Privitive recreation is moderate due to area's small size.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Same as J No impact.	Same as A	Same as J	Same as J	Same as J	Same as A	Same as J	Volcanic formations are present.	Same as A

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 366B ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	16,056	-	-	-	-	-	-	17,306	-
Dispersed Rec	MRVDS	.484	-	-	-	-	-	-	.522	-
NONWILDERNESS	ACRES	1,250	17,306	17,306	17,306	17,306	17,306	17,306	-	17,306
Dispersed Recreation										
Non-Motorized	MRVDS	.001	.010	.010	.010	.010	.010	.010	-	.010
Motorized	MRVDS	.037	.512	.512	.512	.512	.512	.512	-	.512
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.312	.309	.306	.306	.309	.309	.309	.313	.309
Livestock	MAUMS	.507	.517	.507	.507	.517	.517	.507	.507	.517
Fuelwood	MCORDS	.002	.031	.031	.031	.031	.031	.031	-	.031
Xmas Trees	MTREES	.001	.012	.012	.012	.012	.012	.012	-	.012
Sediment Yield	MTONS									
Soil Improvement	ACRES	.024	.030	.030	.030	.060	.030	.030	.024	.030
Minerals	CASES	2.20	2.20	1.83	1.83	2.44	2.20	1.83	2.20	2.20


4-367
RUBY MTNS.
SOUTH
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
RUBY
MOUNTAINS
SCENIC
AREA
STANDARD
PARALLEL
Smith Peak
Joe Billy Basin
Verdi Lake
Verdi Peak
Thomas Canyon
Brennan Spring
Silliman
Mt. Fitzgerald
Snowlake Peak
Lamoille Lake
Dollar Lakes
Liberty
Liberty Lake
Favre Lake
Castle Lake
Lake Peak
North Furlong Lake
Wines Peak
Watermelon Spring
Sulphur Hot Springs
Chokecherry Cr
Indian Graveyard Basin
King Peak
Overland Lake
Lost Lake
Tipton Peak
Green Mountain
Big Mica Mine
Gardner Creek
Welch Creek
Mahogany Creek
Furlong
Carter
Spring
Thompson
Baxter
Smith Cr
Overland
Smith Creek
Dawley
Cottonwood
Wines

ROADLESS AREA RUBY MOUNTAINS, #367 - 55,600 ACRES

1. Description

The Ruby Mountains Roadless Area is on the Ruby Mountains Ranger District of the Humboldt National Forest. The unit lies about 30 miles southeast of Elko, Nevada. There are many peaks over 10,000 feet in elevation, of which Ruby Dome, at 11,387, is the highest. The Ruby Crest National Scenic Trail traverses through approximately 40 miles of the unit. Over a dozen alpine lakes provide prime fishing, while at least 60 miles of streams offer brook, rainbow, and Lahontan cutthroat trout. Mule deer and mountain goats are hunted in the area, as are several upland gamebird species. The high alpine lakes, meadows and peaks stand in contrast to the flat, sagebrush-covered valleys surrounding them. A portion of the area is a classified Scenic Area.

The unit is easily accessible from a paved road up Lamoille Canyon and a dirt road to Harrison Pass, then along the Ruby Crest National Scenic Trail. Access into the area southwest of Lamoille Canyon is very limited by private land surrounding the Forest, plus a lack of adequate trails from any accessible trailhead.

Rock types are highly metamorphosed lower Paleozoic limestones, sandstones, and dolomites and Mesozoic intrusives.

High and steep topography with many dissecting canyons characterizes this area. Some meadows are found in the heads of the canyons, generally with a small lake formed by an old glacial dike. Many sheer cliffs and steep talus slopes dominate the higher areas, while rocky shallow soils cover the V-shaped lower elevations. The large amounts of rock tend to reduce the erosion potential. Streamflows peak rapidly as the snow melts, then fluctuate rapidly according to amounts of precipitation from summer storms. Evidence of past glacial activity is very prevalent. The elevation ranges from the 11,387 foot Ruby Dome to approximately 7,000 feet along the west boundary.

The area lies within the Intermountain sagebrush western ponderosa pine (3130-10) and juniper-pinyon woodland (3130-21) ecosystem. The high mountain peaks are nearly devoid of vegetation, with only scattered patches of low-growing grasses and forbs. The high sideslopes have limber pine, which grades to aspen stands and then mountain mahogany and other brush species as the elevation drops. The meadows are dominated by sedges and shrubby cinqufoil. Throughout the various elevations, sagebrush and grass types can be found interspersed through the tree and mountain brush areas.

Uses in this area are primarily recreation and livestock grazing. The area receives approximately 20,000 Recreation Visitor Days. This use is spread between backpacking, hiking, fishing, hunting, horseback riding, and a helicopter ski operation. There are two thousand Animal Unit Months of sheep use and 776 AUM's of cattle use in the area. About 25 percent of the area is suitable for livestock grazing. The area is only lightly mineralized, and no claims are known to exist on it at present. Except for the old cabin at Overland Lake, no known historical structures exist. Archaeological values are not known to be of much significance at this time.

2. Capability

The boundary is not very definable as it now exists. About one-half of the boundary is located along unsurveyed section lines, while the other half is metes and bounds from peaks to creek confluences. The natural integrity of the area is rated as high because of the lack of modern man-made intrusions, other than grazing of livestock and evidence of wilderness camping. The natural appearance is very high. The opportunity for solitude and primitive recreation is also high, due to the size of the area.

Several boundary modifications have been made on the roadless area. Starting in the northwest quadrant of the roadless area and working in clockwise direction following are the deletions. The Kleckner and Furlong Creeks deletion was made as a result of comments received during the public involvement process. The Battle and Myers Creek area was deleted due to intensive mining activity. The Segunda Creek area was deleted as a result of winter sports activity. One addition was made to the roadless area in the Echo Canyon area. Based upon public comment the recommended wilderness area boundary has been modified. That portion of the orginal roadless area situated between Ruby Dome Peak and Lamoille Canyon has been removed from the final wilderness recommendation. This was done to accommodate the existing heli-ski operation.

Special features of the area include the pristine fishing lakes the presence of a mountain goat herd, and a designated National Scenic Trail.

The area is known to contain the Federally listed threatened species of Lahontan Cutthroat trout.

3. Availability

Land exchanges may remove all private land from the area and consolidate it on lands outside the area. If these exchanges are completed, there will be no private land within the areas containing wilderness characteristics.

The unit has low potential for the occurrence of economic mineral deposits.

The watershed value of the area is high, with very little erosion occurring that is not natural. No need exists for watershed improvement. There are no commercial stands of timber of any kind, except for some aspen. The lack of roads and steep terrain make utilization of the aspen unlikely, even for firewood.

Air quality is high and nothing is foreseen which will change this in the near future. Fire potential is low because of the high, cool nature of the area. Only a few small fires have occurred here over the last few years, even with increased human use.

The opportunity exists to put in more trails, thereby spreading out the use over more of the area.

4. Need

The nearest existing wilderness is in the Jarbidge Mountain Range, about 70 miles north of this area. This area was originally inventoried in RARE I; then in preparing the Unit Plan for the Ruby Mountains, the northern portion (227) was dropped out. The south portion was further inventoried in RARE II and with some boundary adjustments and acreage additions, accepted as an Administratively Endorsed Wilderness. The 3130-10 and 3130-21 ecosystems are not unique to this area alone and probably are not needed to assure future representation.

The largest population centers close to the area are Salt Lake City, Utah, approximately 220 miles to the east, and Reno, Nevada, 350 miles to the west.

During RARE II, the majority of both local and nonlocal comments favored wilderness designation for the #367 portion of the area. During unit planning, the local population was opposed to wilderness classification. The #367 portion was recommended to Congress for wilderness classification.

During 1983, updated map inventories and descriptions were made available to the publlic based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

Under the Preferred Alternative (Alt. K), 55,600 acres are recommended for wilderness.

The boundary for this area (see map) largely eliminates uses that would conflict with wilderness such as mining and helicopter skiing. Upon legislative enactment, this area would be withdrawn from mineral entry subject to valid existing rights. This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 367 ROADLESS AREA

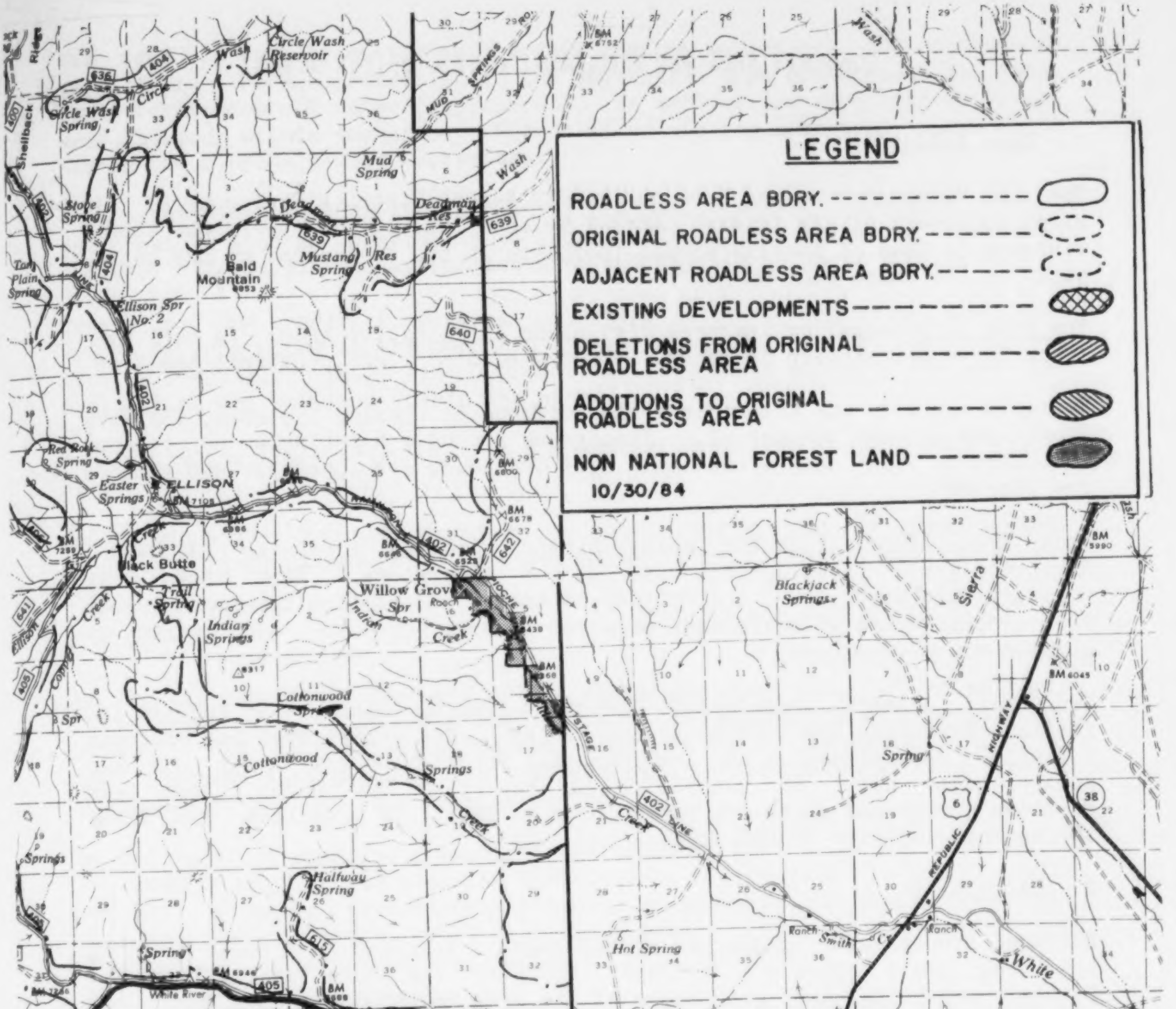
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation							67093		
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									11493
Lvstk (H)								752	
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M);									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				67093					
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	67093	67093	67093		67093	67093		66331	55600

TABLE B—IMPACTS ON WILDERNESS CHARACTER 367 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Same as J	Same as J	Management will be at a level lower than present. Integrity & naturalness may be impaired by ORV use.	Same as J	Same as J	Management will remain at present level. ORV use may impact integrity.	Integrity & natural- are high due to the lack of man-made improvements.	Same as J
SOLITUDE	Same as J	Same as J	Same as J	Solitude may be impacted by ORV use.	Same as J	Same as J	Same as E	Solitude is considered good due to area's size.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as solitude.	Same as J	Same as J	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J							Numerous challenging experiences.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Special areas may be impaired.	Same as J	Same as J	Same as J	Include a designated Scenic Area, Mountain goat population, National Scenic Trail, will be retained.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 367 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	67,093	67,093	67,093	-	67,093	67,093	-	66,331	55,600
Dispersed Rec.	MRVDS	5.99	5.99	5.99	-	5.99	5.99	-	5.92	4.56
NONWILDERNESS	ACRES	-	-	-	67,903	-	-	67,903	752	11,493
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	5.75	-	-	5.75	.067	.94
Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	7.94	7.94	7.94	7.94	7.94	7.94	7.94	7.94	7.94
Livestock	MAUMS	3.50	3.50	3.50	3.50	3.50	3.50	3.59	3.54	3.39
Fuelwood	MCORDS	-	-	-	-	-	-	-	-	-
Xmas Trees	MTREES	-	-	-	-	-	-	-	-	-
Sediment Yield	MTONS									
Soil Improvement	ACRES	.57	.57	.57	-	.57	.57	-	.57	.57
Minerals	CASES	.57	.57	.57	.57	.57	.57	.57	.57	.57


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-368
RED MT.
DIVISION
Circle Wash Reservoir
Circle Wash Spring
Mud Spring
Deadman Res
Bald Mountain
Mustang Spring
Ellison Spr No. 2
Red Rock Spring
Easter Springs
ELLISON
Black Butte
Willow Grove
Indian Springs
Cottonwood Spring
Halfway Spring
White River
Red Mountain
Hidden
Microwave Station
Summit Spring
Reservoir
Blackjack Springs
Sierra
Hot Spring
Smith Cr
Ranch
White
THE REPUBLIC OF ARMY HIGHWAY
Stage
Springs

ROADLESS AREA RED MOUNTAIN, #368 - 28,548 ACRES

1. Description

The Red Mountain Roadless Area on the Ely Ranger District lies some 35 air miles southwest of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded foothills in the foreground of the taller peaks on the White Pine Range.

The area is accessed by improved dirt roads circling the area. A barb wire fence forms the eastern boundary. Unimproved dirt roads penetrate the area.

Volcanic activity was the major geologic force in forming the area, and lava flows are evident throughout. Topography includes benchlands and steeper foothills to 9,300 feet elevation. Most drainages are ephemeral and meadows are limited.

This area lies within the juniper-pinyon woodland ecosystem (3130-21). Sagebrush-grass types predominate as the understory. Some areas have mountain mahogany, aspen, and cottonwood trees. Vegetation type conversions for livestock and wildlife have occurred in some portions, and introduced grasses now predominate.

Currently, primary uses include livestock grazing (cattle - 95 AUM's) and limited recreation use (estimated 200 RVD's). The entire area has moderate potential for magnesium and low potential for oil and gas. Oil and gas leases cover about 80 percent of the area or 25,040 acres. The area provides summer and migratory range for mule deer. A powerline runs along the southeast corner of the area.

2. Capability

Although topographic boundaries do not exist, improved dirt roads bounding the area could provide a definable boundary for potential wilderness. Natural integrity and appearance of the area is rated moderate and low, respectively, primarily due to past vegetation manipulation and road intrusions. Impacts of man include vegetative maniputlaion areas and the presence of nonindigenous plants.

Several modifications have been made in the roadless area boundary. Three improved road corridors (Horse Track Springs, Hidden Springs, and an unnamed spur road) were all deleted from the roadless area. Two crested wheat grass seedings in the southeast quadrant of the roadless areas were also deleted.

Opportunities for solitude are moderate, and low for primitive recreation because of the nature of the topography and ease of access. No threatened or endangered plant species are known to occur in the area. There is a very low potential for challenging experiences.

3. Availability

Recreation use is limited to mule deer and upland gamebird hunting. Winter sports use is probably very limited to nonexistant. Few opportunities exist to increase dispersed recreation activity.

The area is used by cattle but overall grazing values are not considered very high. Forage production in the vegetative type conversions is good. Livestock fences and water developments, as well as two revegetated areas, are located within the area. Potential exists for more type conversions within the pinyon-juniper ecosystems.

Timber resources include the harvest of fuelwood, posts, Christmas trees, and pinenuts with an opportunity to increase these activities. A commercial fuelwood sale is planned within the area and may affect up to 300 acres.

Generally, the hardrock mineral potential is low. Magnesite has been extracted from mines in the northern and southeast portions of the roadless area. Currently, there is no production from these mines. Oil and gas exploration may continue within the area.

Archaeological sites have not been documented within the area, but probably exist.

All lands within the area boundary are within the National Forest system. Based on historical records, fire potential is only moderate throughout the area.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 185 miles north of the area. The Red Mountain roadless area is remote from major population centers; Ely is about 35 miles away from the area. Since the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The Red Mountain roadless area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II local public sentiment strongly favored nonwilderness management. Comments from the nonlocal public were about equally divided between wilderness and nonwilderness. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This roadless area was not recommended for wilderness in the Preferred Alternative (Alt. K).

Structural and nonstructural range improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase slightly. The area has not been withdrawn from mineral entry. The hardrock mineral potential for the area is low. Most of the area is incorporated into oil and gas leases. Although no drilling has occurred to date, future wilderness options may be foregone if oil and gas exploration drilling was to commence.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 368 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		31095				31095			31095
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					31095				
All low	2547		31095	31095			31095		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	28548							31095	

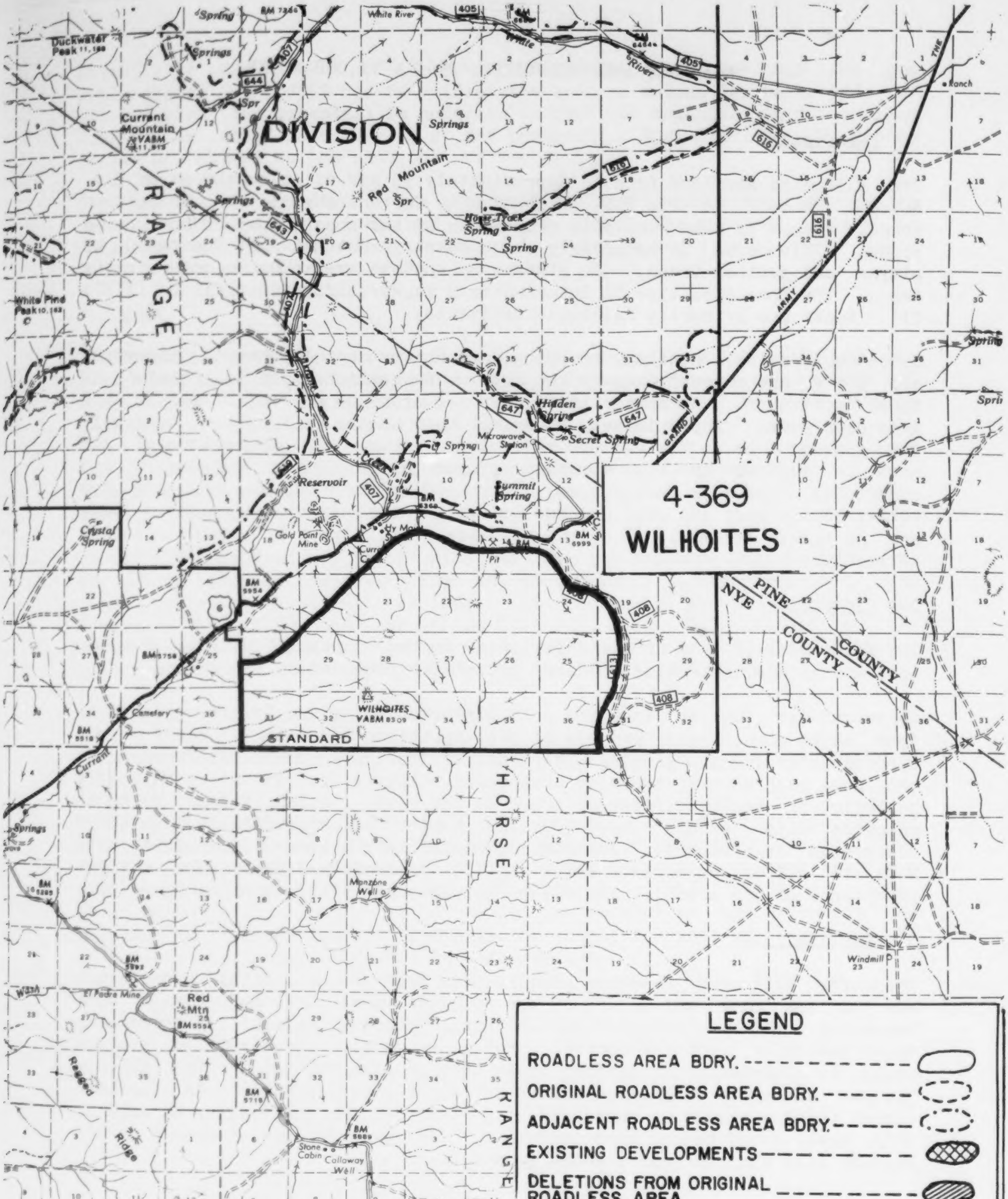
TABLE B—IMPACTS ON WILDERNESS CHARACTER

368 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Wilderness recommended for 28,548 ac Integrity & naturalness for wilderness may be impaired.	Current management will be maintained Integrity & naturalness may be impaired.	Management level lower than present level. Same as J.	Same as D	Management will emphasize noncommodity rescuces Same as J.	Same as C	Same as D	Integrity & naturalness are rated as moderate & low, respectively. This is due to past vegetation manipulation & road intrusions.	Same as C
SOLITUDE	Solitude may be impacted.	Same as A	Same as J	Same as J	Solitude same as J.	Same as A	Same as J	Solitude is considered to be moderate.	Same as A
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation is low.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 368 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	28,548	-	-	-	-	-	-	31,095	-
Dispersed Rec	MRVDS	.861	-	-	-	-	-	-	.937	-
NONWILDERNESS	ACRES	2,547	31,095	31,095	31,095	31,095	31,095	31,095	-	31,095
Dispersed Recreation										
Non-Motorized	MRVDS	.001	.018	.018	.018	.018	.018	.018	-	.018
Motorized	MRVDS	.075	.919	.919	.919	.919	.919	.919	-	.919
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.563	.557	.552	.552	.557	.557	.552	.564	.557
Livestock	MAUMS	.911	.929	.911	.911	.929	.929	.911	.911	.929
Fuelwood	MCORDS	.004	.053	.053	.053	.053	.053	.053	-	.053
Xmas Trees	MTREES	.002	.021	.021	.021	.021	.021	.021	-	.021
Sediment Yield	MTONS									
Soil Improvement	ACRES	.042	.054	.054	.054	.106	.054	.054	.042	.054
Minerals	CASES	3.80	3.85	3.20	3.20	4.28	3.85	3.20	3.85	3.85


4-369
WILHOITES
DIVISION
RANGE
HORSE
RANGE
STANDARD
WILHOITES VABM 8309
Duckwater Peak 11,188
Current Mountain VABM 11,513
White Pine Peak 10,183
White River
Red Mountain
Horse Track Spring
Hidden Spring
Secret Spring
Summit Spring
Microwave Station
Reservoir
Gold Point Mine
Crystal Spring
Cemetery
Current
Monzone Well
Windmill
El Padre Mine
Red Mtn
Stone Cabin
Calloway Well
Blind Spring
Ridge
ANDREWS
Ranch
GRAND ARMY OF THE
WHITE PINE COUNTY
NYE COUNTY
405
407
408
616
643
644
647
6
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA WILHOITES, #369 - 11,068 ACRES

1. Description

The Wilhoites Roadless Area is approximately 35 air miles southwest of Ely, Nevada. Access is via U.S. Highway 6 to Currant Summit and unimproved roads. Access is also available from south of the area by way of unimproved roads. This area is moderately steep country extensively dominated by pinyon and juniper trees. No streams or springs are known to occur in the area. The eocsystem type is Intermountain sagebrush/pinyon-juniper (3130-21). Rocks are primarily Paleozoic sediments.

Livestock grazing, hunting, trapping, and harvesting of pinenuts, firewood, and posts are current uses of the area. Recreational use is related to these activites. An estimated 50 days are spent by recreationists in this area each year. Approximately 55 Animal Unit Months (AUM's) are available for grazing use in the eastern side of this area. The appearance of the area is defined by the dominant pinyon-juniper plant community and occasional sagebrush communities. Surrounding the Wilhoites area are two valley basins east and west and two mountain ranges north and south. There are no scenic landmarks or unique wildlife in this area to provide special attractions.

2. Capability

The boundaries of this area consist of a road in a drainage bottom, a ridge top, and an administrative boundary not visibly defined on the ground.

Opportunities for solitude and primitive recreation are low as use would tend to be concentrated because of the vegetation screening. There are no opportunities for challenging experiences. There are no special features in the area such as threatened or endangered wildlife or plants. No unique geologic or ecologic features exist in the area. Some limited cultural resource sites exist; however, the extent or significance of their occurrence is unknown. The natural integrity of the area is rated only moderate due to unimproved roads and 100 acres of seedings. The natural appearance of the area is also rated moderate due to the umimproved roads.

3. Availability

Tradeoffs with other resource uses in this area are of limited opportunity due to the size and nature of the roadless area. A major mule deer migration route splits the area and lttle potential exists for rerouting their naturally preferred course. Forage production for livestock grazing could be increased in limited areas through revegetation of the pinyon-juniper community and construction of water developments. As firewood demand remains static or increases, opportunities for utilization of wood in this area could become more important. The area is located near a state highway less than an hour's drive from Ely.

Essentially 80 percent of the area is presently leased for oil and gas exploration. The USGS had identified the area as having low potential for oil and gas. The potential is moderate to high for economic mineralization; alumina is cited as occurring at one prospect. Approximately 50 mining claims are staked in the east part of the unit.

Fire and insects and disease are potential threats to the area; however, the value associated with pinyon and juniper is low. The greatest impact of reducing the pinyon-juniper woodland in the area would be to mule deer. There are no private lands within the area.

4. Need

The closest wilderness is the Jarbidge Wilderness 210 miles north of the area. The nearest population center is Las Vegas, Nevada, approximately 200 miles south of the roadless area. Wilderness proponents have shown little interest in this area's classification as wilderness or nonwilderness. Both local and nonlocal public input favored management for nonwilderness uses during RARE II. There is no need for wilderness representation of the Intermountain sagebrush ecosystem in this area. During RARE II, the area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This roadless area was not recommedned for wilderness in the Preferred Alternative.

Structural and nonstructural range improvements, as well as harvesting of wood products, are part of the scheduled management prescribed for the area. ORV use is expected to increase slightly. The area has not been withdrawn from mineral entry. The oil and gas potential is rated low for the area. The potential for hardrock minerals is considered to be moderate. Unscheduled mining impacts will have the greatest impact on the amount of wilderness available for future considerations.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 369 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		11068				11068			11068
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					11068				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			11068	11068			11068		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	11068							11068	

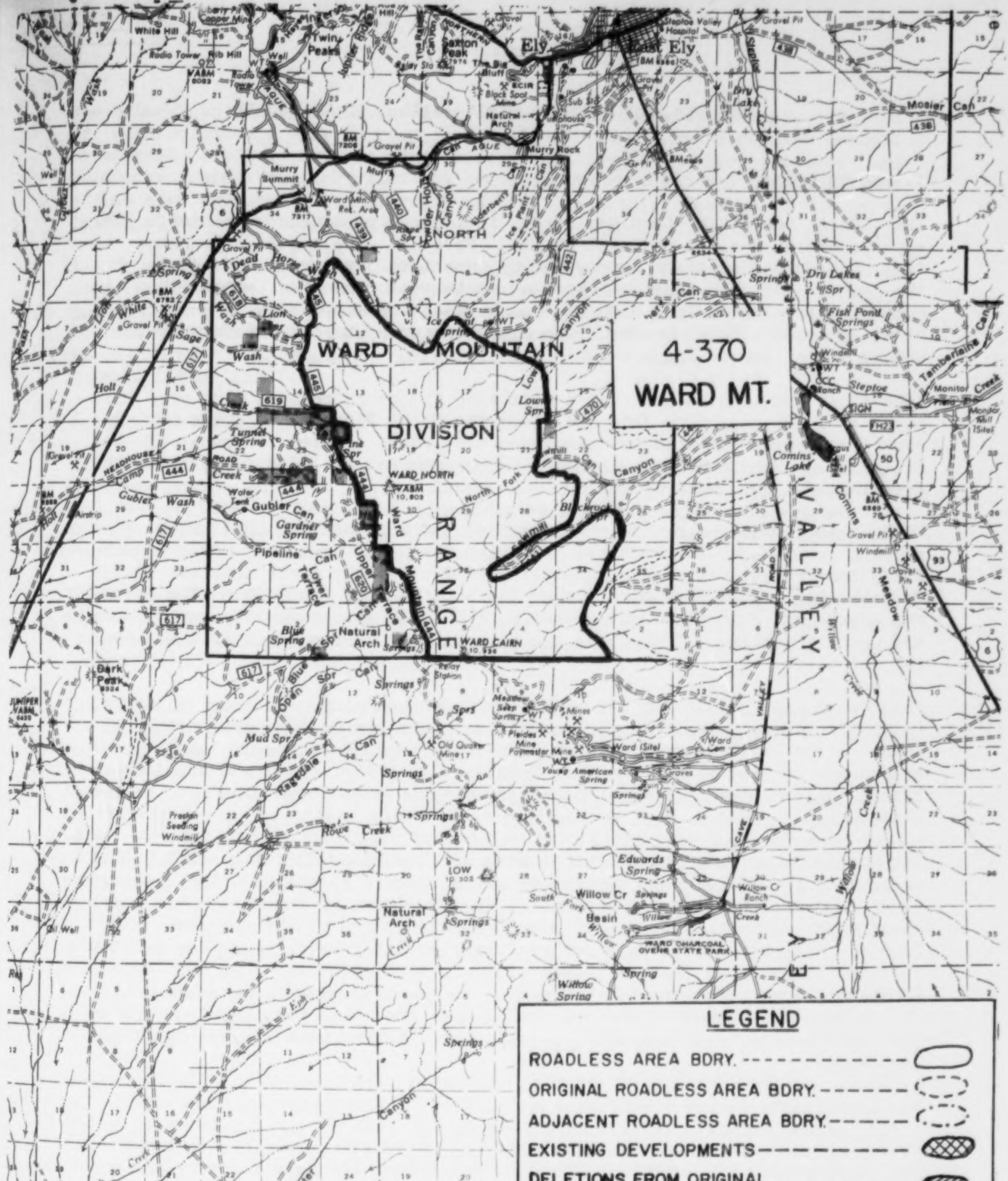
TABLE B—IMPACTS ON WILDERNESS CHARACTER

369 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will remain at present level. Integrity & naturalness may be reduced due to range improvements.	Management will be at a level lower than present. Same as J.	Same as D	Management will emphasize noncommodity resources. Same as J.	Same as C	Same as D	Integrity & naturalness are rated as moderate due to unimproved dirt roads & past seedings.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to absence of vegetative screening.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 369 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	11,068	-	-	-	-	-	-	11,068	-
Dispersed Rec	MRVDS	.334	-	-	-	-	-	-	.334	-
NONWILDERNESS	ACRES	-	11,068	11,068	11,068	11,068	11,068	11,068	-	11,06
Dispersed Recreation										
Non-Motorized	MRVDS	-	.007	.007	.007	.007	.007	.007	-	.007
Motorized	MRVDS	-	.327	.327	.327	.327	.327	.372	-	.327
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.201	.198	.196	.196	.198	.198	.196	.210	.198
Livestock	MAUMS	.324	.331	.324	.324	.331	.331	.324	.324	.331
Fuelwood	MCORDS	-	.02	.02	.02	.02	.02	.02	-	.02
Xmas Trees	MTREES	-	.008	.008	.008	.008	.008	.008	-	.008
Sediment Yield	MTONS									
Soil Improvement	ACRES	.015	.019	.019	.019	.038	.019	.019	.015	.019
Minerals	CASES	1.37	1.37	1.14	1.14	1.52	1.37	1.14	1.37	1.37


4-370
WARD MT.
WARD MOUNTAIN
DIVISION
RANGE
VALLEY
Ely
East Ely
Murry Summit
Ward Mtn Rec. Area
NORTH
WARD NORTH
WARD CAIRN
Natural Arch
Comins Lake
Ward (Site)
WARD CHARCOAL OVENS STATE PARK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA WARD MOUNTAIN, #370 - 12,976 ACRES

1. Description

The Ward Mountain Roadless Area in the Ely Ranger District lies approximately 5 miles soutwest of Ely, Nevada. The unit's appearance is that of a mountain island surrounded by desert valleys. Ward Mountain, in the center of the unit, forms a north-south running ridge that is approximately 10,900 feet high and can be seen for many miles. Bristlecone pine, which are found on the steep upper slopes of Ward Mountain, provide a unique attraction in the area.

Access is provided on the unit's west side by the unimproved dirt road that runs from Highway 6 up into and along the Upper Terrace. Access on the north and east sides is by unimproved dirt roads located in many of the drainages. The steepness of the terrain generally limits roads into the area itself.

High, steep topography is characteristic of most of the area with some rolling pinyon-juniper covered hills on the lower north and east sides. Elevation ranges from approximately 7500 feet on the north end to 10,936 feet at the top of Ward Mountain on the south end of the unit. The soils are developed from limestone parent material and are generally calcareous and very gravelly. Rock types are Paleozoic sediments, mainly limestones and dolomites.

This area lies within the Intermountain sagebrush/pinyon-juniper ecosystem (3130-21). Pinyon-juniper and mountain mahogany stands dominate much of the lower slopes with islands of sagebrush-grass types intermixed. The upper slopes are covered with white fir, Douglas fir, limber pine, and bristlecone pine. Aspen stands and sagebrush-grass types also occur in the higher elevations.

The primary current uses of this area are livestock grazing (200 AUMs) recreation (200 RVDs), and watershed. This unit is aportion of the recharge area for the City of Ely's municipal water source. The area has been designated as a traditional pine nut gathering area by the Nevada Tribal Council although little pine nut gathering actually takes place due to the limited access and lack of pinyon pines. USGS rates the unit as having prospective potential for oil and gas. It has been given a moderate rating for prospective potential for silver, lead, zinc, copper, and iron due to its close proximity to presently developed properties with similar geologic conditions.

2. Capability

There are no topographic features which would provide a definable boundary for a potential wilderness. The National Forest boundary fence provides a man-made boundary on the south side of the unit. The excessive steepness of most of the unit severely limits motorized access and developments, thus manageability problems would probably be minimal.

The natural integrity and appearance of the area are rated as high. Impacts of man include one mile of road, one mile of fence, and a 50-acre crested wheatgrass seeding on the west side. Opportunities for solitude and primitive recreation are rated low and moderate respectively due to the use of the area because of the nearness of Ely. A special feature in the area is the stands of bristlecone pine.

No federally listed threatened or endangered plants or animals are known to occur in the area. A Forest Service designated sensitive plant, Haplopappus watsonii, is found in the unit. Two other sensitive plant species have been documented south of the unit and probably occur in the roadless area itself. These are: Astragalus lentinginosus var. latus and Penstemon franciscipennellii.

3. Availability

Recreational activities in the area include backpacking, hiking, and deer and blue grouse hunting. Cross-country skiiing and snowmobiling also occur to some extent. There are opportunities for increasing disperesed use through trail development. Local civic groups would also encourage the development of a ski area within the unit.

This area provides summer habitat for mule deer, sage and blue grouse. Elk also use the area to some extent. The potential for habitat improvement projects is limited although the clearing of some small patches of pinyon-juniper in the lower areas could benefit deer and elk.

The unit is an essential watershed for the town of Ely. The snowpack and subsequent spring run-off recharge the water table and springs from which the town draws its water supply.

The area is grazed by domestic sheep and cattle. The majority of the area is classified as unsutiable due to its steepness or lack of water. Suitable range is located on the Upper Terrace or in the drainage bottoms near the unit's boundaries. The National Forest boundary fence is located on the south end of the unit. No other structural range improvements are located on the unit. There is some potential to increase livestock forage by removing the pinyon-juniper overstory in areas on the northwest and eastern bundaries.

Some fuelwood and Christmas trees are harvested on the lower northwest and east sides of the unit. These activities are fairly limited due to the inaccessibility of much of the area.

Mining developments have been extensive both north and south of the area, but claims and exploration activities in the unit itself have been minimal. There is potential for an increase in mineral activity. The potential for the occurrrence of economic mineral deposits is moderate. Approximately 180 mining claims are staked along the south and east boundaries of the unit.

Archaeological sites have been documented adjacent to the unit. Additional undocumented sites probably occur within the area.

Fire potential, based on historical records, is moderate with no known insect or disease problems.

4. Need

The Ward Mountain roadless area lies approximately 5 miles southeast of Ely, Nevada. The nearest existing wilderness area, Jarbidge, lies 165 miles north of the area.

The Intermountain sagebrush/pinyon-juniper ecosystem is common throughout Nevada, but the small stands of bristlecone pine are unique. Although these pine stands are fairly well protected due to their inaccessible locations, wilderness classification of the area would provide additional protection for these unusual trees.

During the RARE II process, local public sentiment strngly favored nonwilderness management. Nonlocal opinion also favored nonwilderness management. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative.

Structural range improvements and harvesting of woodland products are part of the scheduled management prescribed for the area. ORV use could increase substantially. The area has not been withdrawn from mineral entry. The area has a low potential for the production of oil and gas. The potential for hardrock minerals is considered to be moderate. The increased ORV use and unscheduled mining developments will have the greatest impact on the amount of wilderness available for future considerations.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **370 ROADLESS AREA**

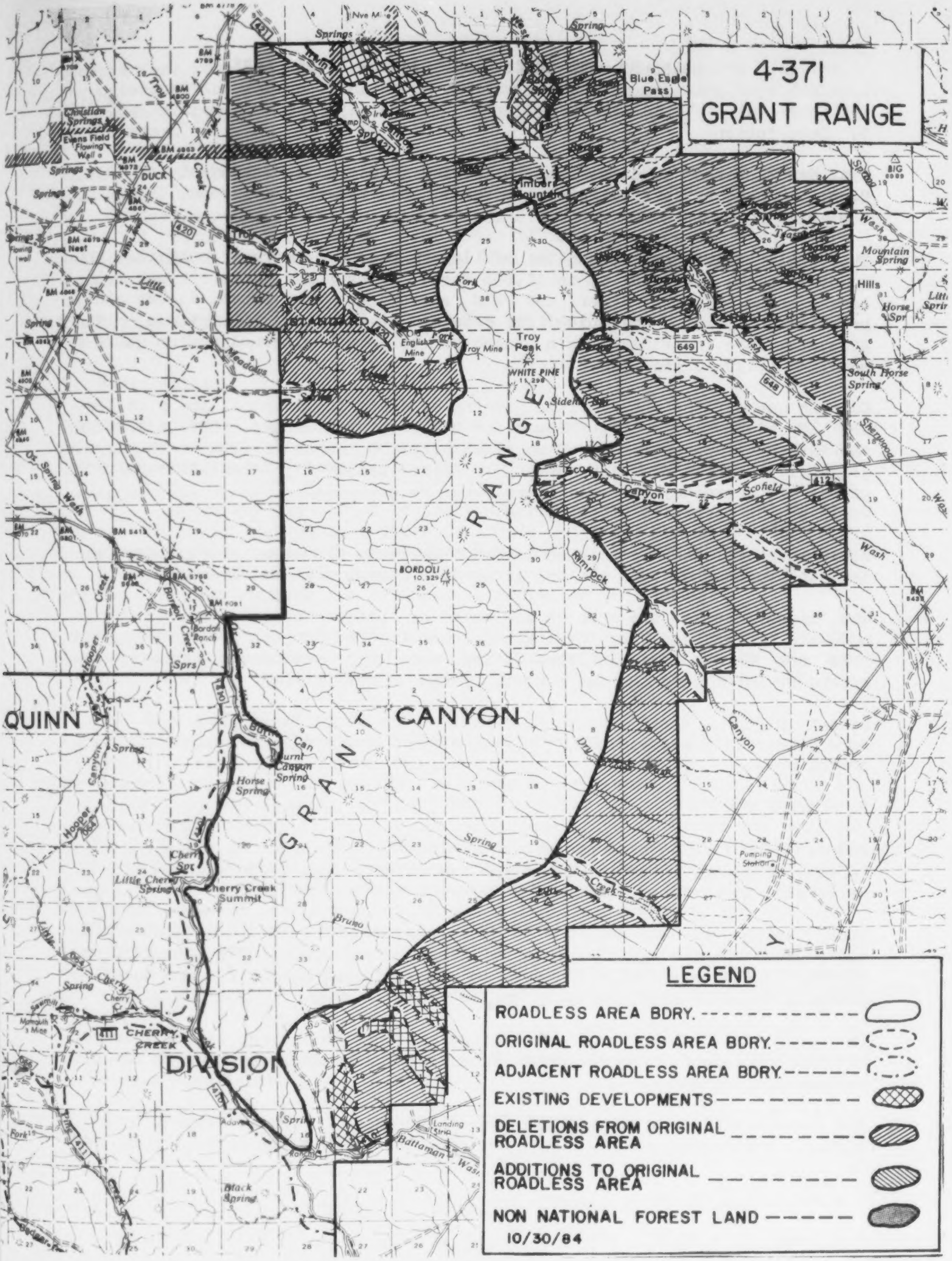
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						12976			12976
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					12976				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low		12976	12976	12976			12976		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	12976							12976	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 370 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be at a level lower than present. Integrity & naturalness may be reduced.	Same as C	Same as C	Management will emphazise noncommodity resources. Habitat improvement may impact integrity & naturalness.	Management will remain at present level. Integrity & naturalness may be reduced through increased improvement projects.	Same as C	Integrity & naturalness are rated high due to the lack of man-made improvements.	Same as H
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is considered to be low. Being that the area is near Ely, NV it receives a considerable amount of use.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same rationale as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J No impact.	Same as J	Bristlecone pine are present on the area. No impact.	Same as H

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 370 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	12,976	-	-	-	-	-	-	976	-
Dispersed Rec.	MRVDS	3.90	-	-	-	-	-	-	3.90	-
NONWILDERNESS	ACRES	-	12,976	12,976	12,976	12,976	12,976	12,976	-	12,976
Dispersed Recreation										
Non-Motorized	MRVDS	-	.066	.066	.066	.066	.066	.066	-	.066
Motorized	MRVDS	-	3.62	3.62	3.62	3.62	3.62	3.62	-	3.62
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.817	.816	.816	.816	.816	.816	.816	.817	.816
Livestock	MAUMS	.543	.543	.543	.543	.591	.591	.543	.543	.591
Fuelwood	MCORDS	-	.139	.139	.139	.139	.139	.139	.139	.139
Xmas Trees	MTREES	-	.124	.124	.124	.124	.124	.124	-	.124
Sediment Yield	MTONS									
Soil Improvement	ACRES	.048	.048	.048	.053	.048	.048	.048	.051	.048
Minerals	CASES	.90	.58	.58	.58	1.29	.90	.58	.90	.90


4-371
GRANT RANGE
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
GRANT CANYON
GRANT RANGE
QUINN
DIVISION
Blue Eagle Pass
Timber Mountain
Troy Peak
WHITE PINE
BORDOLI
STANDARD
English Mine
Troy Mine
Scofield Canyon
Cherry Creek Summit
CHERRY CREEK
Horse Spring
Burnt Canyon Spring
Little Cherry Spring
Mountain Spring
South Horse Spring
Christian Springs
Evans Field Flowing Well
DUCK
Crows Nest
Bordoli Ranch
Pumping Station
Landing Strip
Black Spring
Battaman Wash
Sherwood
Rimrock
Dry

ROADLESS AREA GRANT RANGE, #371 - 43,100 ACRES

1. Description

The Grant Range Roadless Area is located 80 air miles southwest of Ely, Nevada. Access is available on several State and county roads including U.S. Highway 6 and State roads 375 and 318.

The Grant Range area consists of lower bench country, foothills, and mountain peaks extending up to 11,298 feet. Pinyon and juniper trees cover large areas of the lower and mid elevations with aspen, limber pine, bristlecone pine, and white fir growing at the upper elevations. The ecosystem type is Intermountain sagebrush/ponderosa pine and pinyon-juniper woodland (3130-10 and 3130-21).

Current uses of the area include grazing by domestic livestock and wildlife, use of timber products, minerals, oil and gas leases, and dispersed recreation. Approximately 50 days are spent by recreationists in this area primarily associated with hunting. Approximately 813 Animal Unit Months (AUMs) are grazed by domestic livestock. No producing mines or oil and gas wells are in operation at this time.

Rock types include Paleozoic sediments, Mesozoic granitic intrusives, and Tertiary volcanics. The eastern slope is a recent alluvial bench.

The appearance of the area is dominated by pinyon covered slopes, high mountain ledges, and bald looking sagebrush-covered slopes. Surrounding the area are Garden and Railroad Valleys east and west, the Grant Range extending north, and the Quinn Canyon Range to the south.

Desert bighorn sheep summer and winter in the Grant Range Roadless Area. Bare rock cliffs are visible from the valley floor lending some scenic value to the area.

2. Capability

Boundaries of this area are presently located near existing roads and the Forest boundary. Boundary adjustments were made to exclude areas that were determined to be mineralized and that had existing roads.

Troy Canyon was excluded due to the presence of a road, current mining claims, and the strong possibility of further development. The area adjacent to Troy Canyon was excluded due to high mineral potential and numerous mining claim spur roads existing in that area.

The east flank of the range, including that portion between Scofield Canyon and Rimrock Canyon, was excluded because it has moderate potential for oil and gas development.

The overall influence of existing impacts (grazing, roads, fences, trails, mining, vegetative manipulation, nonindigenous plants, unimproved roads and occupancies) on the natural integrity and appearance of the area is low. The opportunities for solitude and primitive recreation are very high due to the area's remoteness. There are many opportunities for challenging experiences.

There are no threatened or endangered plants or animals known to occur in the area, but there are several State listed sensitive plant species. Desert bighorn sheep inhabiting the area are relatively easy to see and are a special feature of this area. Early use of this area consisted of mining and grazing. Many of the buildings from early day mines are still in existence.

The area is adjacent to the south boundary of the Riordan's Well Wilderness Study Area (Egan Resource Area, BLM).

3. Availability

There is limited potential in this area for developed recreation sites. Mule deer summer and winter within this area as do desert bighorn sheep. Under improving habitat management and conditions, both of these important big game species could expand their populations. The bighorn sheep are not hunted. Water quality could be improved but only in a very limited area and at a very high cost. There is little potential for expanding the livestock operations in the area since only a small percentage of the area is considered as suitable range. Better use could be made of suitable grazing lands by construction of water developments and fences.

Timber products produced in the area are posts, pine nuts, Christmas trees, and fuelwood. Demand for the above products in this area is low at the present time but could increase as supplies closer to populated areas are exhausted.

An interest has been shown in the area for production of oil and gas. At the present time, there is one oil and gas lease. All others have expired and cannot be re-issued pending settlement of a moratorium on leases in proposed wilderness areas. The USGS has rated the surrounding area has having moderate potential for oil and gas; however, a producing oil well is located 5 miles from the northwest corner of the area. Mining activities, historic and current, are common in Troy Canyon, Irwin Canyon, and Grant Canyon. No large mines are currently in production. The USGS considers this area to have a high potential for gold, lead, silver, and fluorspar with uranium, tungsten, manganese, and lead occurring in various prospects. Recent oil/gas discoveries in Railroad Valley indicate the possibility of the occurrence of oil/gas deposits on the eastern bench. The northwest and southeast parts of the unit are staked with mining claims, 150 claims in all.

Cultural resources are sure to occur in the area; however, no significant sites have been located.

Fire, insects, and disease could be problems in this area in the pinyon-juniper woodland; however, resource values in this vegetative type are generally low. Fire could be a threat to important game ranges within the area.

4. Need

The nearest wilderness areas to the Grant Range roadless area are in souteastern California on the Inyo and Sierra National Forests, approximately 160 miles to the west. The nearest population center is Las Vegas, Nevada; 130 miles south.

During RARE II, wilderness proponents showed a moderate amount of interest in this area and would have liked to have seen it classified as a wilderness. The local public comments were about equally split between wilderness and nonwilderness. The area was endorsed as wilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only new input received was one comment expressing an opinion that wilderness designation could cause loss of local control.

Many mineral companies have expressed opposition to classification of the area as wilderness due to the mineral and oil/gas potential.

5. Preferred Alternative Recommendation

Under the Preferred Alternative (Alt. K), 43,100 acres are recommended for wilderness designation. The area exhibits a high degree of solitude and opportunities for primitive type recreation. Furthermore, boundary modifications have been used effectively in eliminating acreage having low natural integrity or significant resource conflicts and moderate oil/gas potential.

The boundary for this area (see map) largely eliminates uses that would conflict with wilderness such as mining and harvesting woodland products. Upon legislative enactment, this area would be withdrawn from mineral entry subject to valid existing rights. This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activities foregone is not significant. The exception is minerals where the values are not known but considered to be significant.

The remaining 47,647 acres are designated for non-wilderness uses. The majority of the mining claims and leases occur in this area. Some other resource activites such as harvesting woodland products, range improvements, and wildlife habitat improvement occur. The opportunity for other resource uses is minimal. It is estimated that most of this area would not be available for wilderness consideration during the next plan revision.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

371 ROADLESS AREA

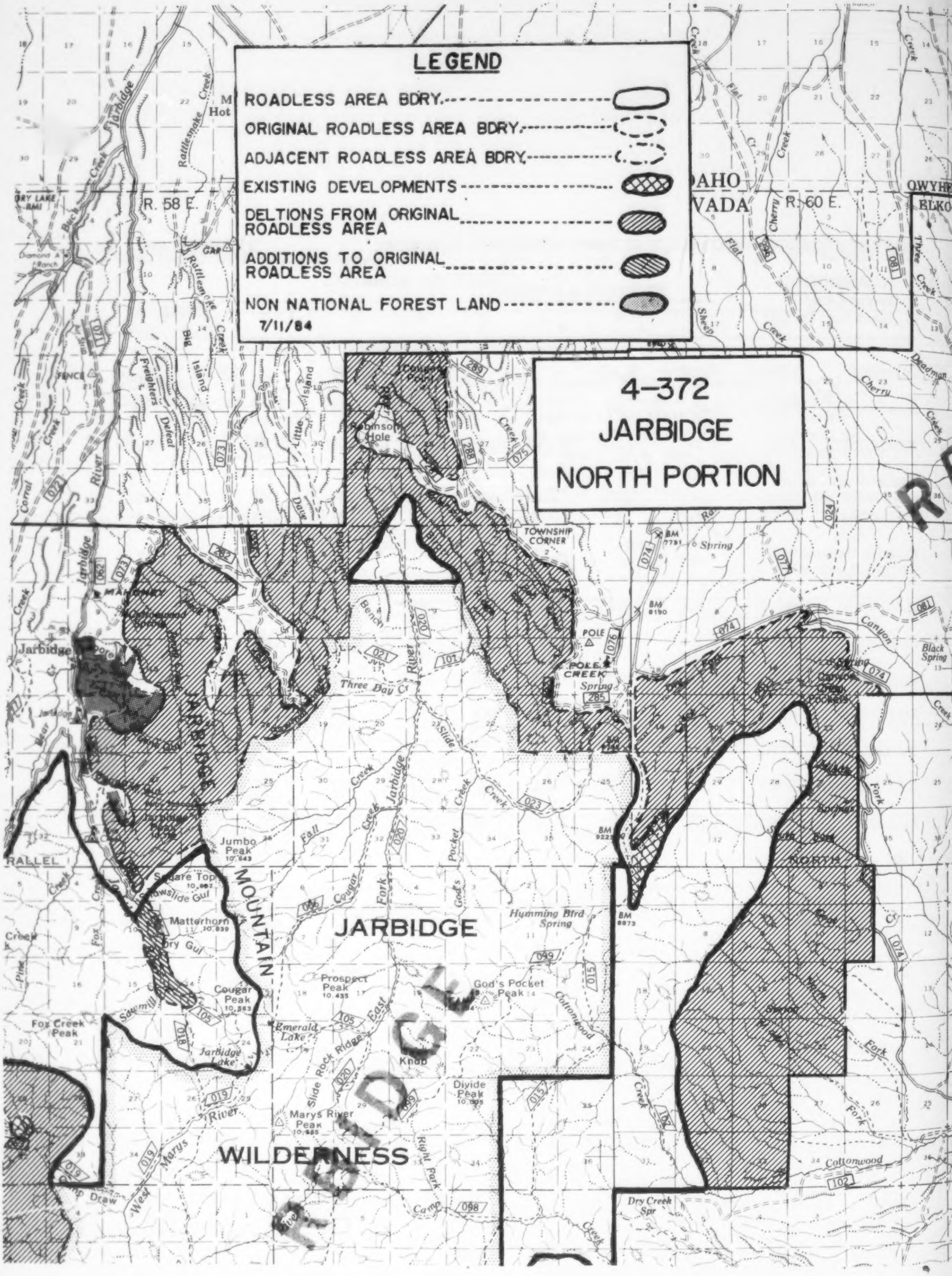
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						47647			47647
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					47647				
All low	47647	47647	101030	101030			101030		
All high except Lvstk									
All high except WL									
All moderate									19574
Wilderness	53343	53343			53343	53343		101030	43100

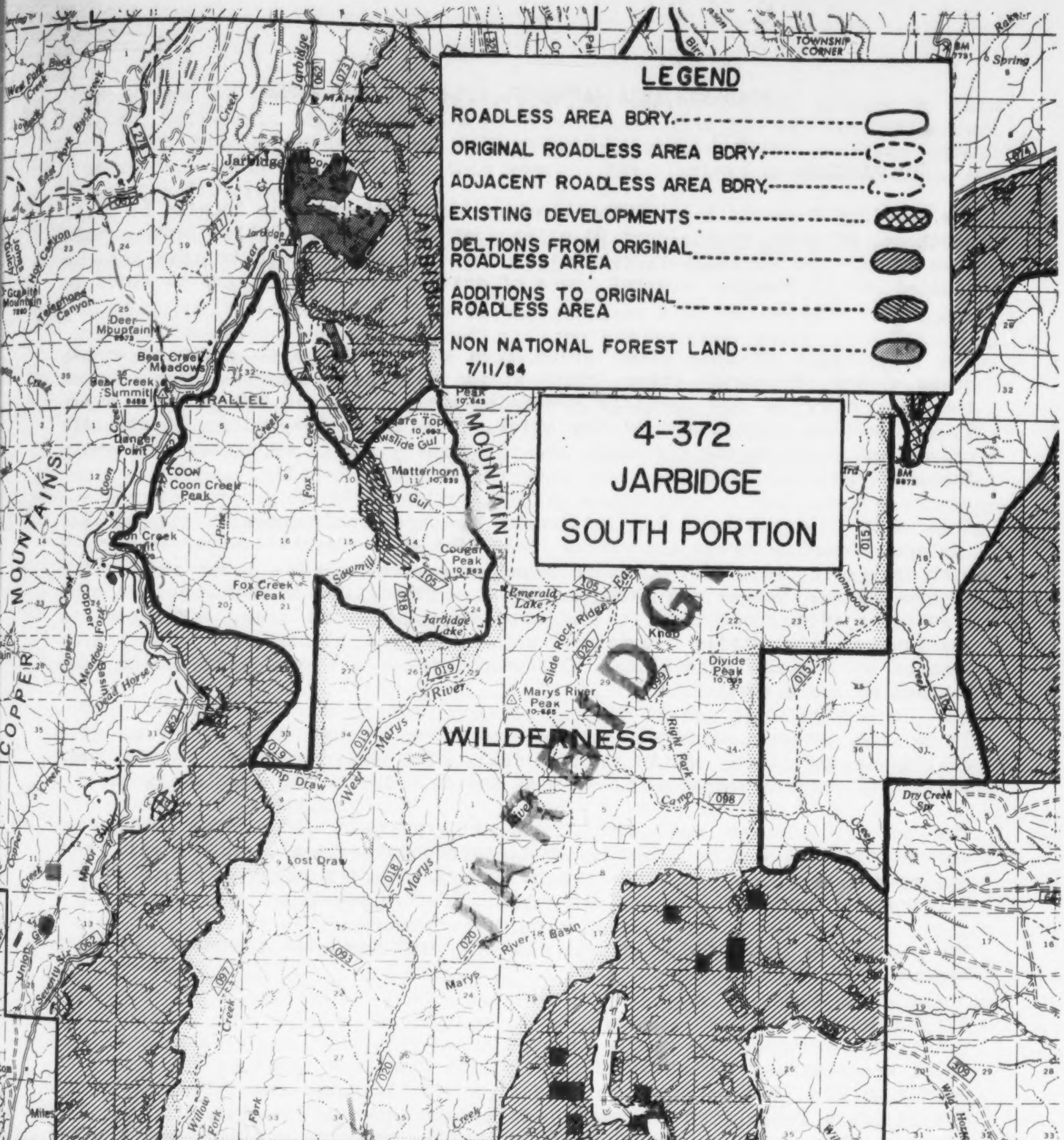
TABLE B—IMPACTS ON WILDERNESS CHARACTER 371 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Integrity and naturalness will be high on the area managed as wilderness. The remaining area same as J.	Same as A	Area managed at a low emphasis level- Integrity and naturalness may be impacted by increased mining activity.	Same as D	Wilderness portion same as A. Non-wilderness portion same as H.	Portion recommended for Wilderness same as A. Integrity on remaining area same as J. Additional impacts from habitat improvement projects.	Same as D	Integrity and naturalness are impacted by existing roads and past mining activity	
SOLITUDE	Solitude on wilderness portion will be high. Remaining area same as J.	Same as A	Solitude may be reduced.	Same as D	Same as J	Same as J	Same as D	Solitude is moderate due to roads and mining impacts.	
PRIMITIVE RECREATION	Primitive recreation same as solitude.	Same as A	Primitive recreation may be reduced.	Same as D	Same as J	Same as J	Same as D	Primitive recreation same as solitude.	
CHALLENGING EXPERIENCES	Same as J	Same as A	Same as J	Same as J	Same as J	Same as J	Same as J	Many opportunities exist.	
SPECIAL FEATURES	Special features will be in wilderness area.	Same as A	Special features may be impacted.	Same as D	Same as A	Same as A	Same as D	Desert big horn sheep, state listed sensitive plants plants are found in the area. Cliffs add scenic value. No impact.	

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 371 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	53,383	53,383	-	-	53,383	53,383	-	101,030	43,100
Dispersed Rec	MRVDS	4.69	.469	-	-	.469	.469	-	.886	.66
NONWILDERNESS	ACRES	47,647	47,647	101,303	101,030	47,647	47,647	101,030	-	10,283
Dispersed Recreation										
Non-Motorized	MRVDS	.044	.044	.092	.092	.054	.044	.092	-	.02
Motorized	MRVDS	.351	.351	.744	.744	.364	.351	.744	-	.14
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.556	.556	.553	.553	.558	.563	.553	.558	.563
Livestock	MAUMS	1.46	1.46	1.46	1.46	1.46	1.26	1.46	1.46	.076
Fuelwood	MCCRDS	.027	.027	.058	.058	.037	.027	.058	-	.022
Xmas Trees	MTREES	.006	.006	.013	.013	.007	.013	.014	-	.011
Sediment Yield	MTONS									
Soil Improvement	ACRES	.067	.067	.047	.047	.086	.067	.047	.084	.067
Minerals	CASES	6.63	6.63	7.80	7.80	6.03	5.57	7.80	5.57	5.57


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
4–372
JARBIDGE
NORTH PORTION
IDAHO
NEVADA
R. 58 E.
R. 60 E.
OWYHEE
ELKO
Jarbidge
JARBIDGE
JARBIDGE MOUNTAIN
JARBIDGE WILDERNESS
Jarbidge River
Robinson Hole
TOWNSHIP CORNER
POLE CREEK Spring
Three Day Cr
Slide Creek
Jumbo Peak 10,843
Square Top
Matterhorn 10,839
Cougar Peak 10,553
Prospect Peak
Fox Creek Peak
Emerald Lake
Jarbidge Lake
God's Pocket Peak
Humming Bird Spring
Divide Peak
Marys River Peak
Slide Rock Ridge
Marys River
Cottonwood
Dry Creek Spr
Black Spring
Canyon
NORTH


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELTIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
7/11/84
TOWNSHIP CORNER
Jarbidge
Bear Creek Meadows
Bear Creek Summit
Danger Point
Coon Creek Peak
Fox Creek Peak
Matterhorn
Cougar Peak
Emerald Lake
Jarbidge Lake
Slide Rock Ridge
Marys River Peak
Divide Peak
COPPER MOUNTAINS
JARBIDGE MOUNTAIN
JARBIDGE
WILDERNESS
Marys River Basin
Lost Draw
Williams Basin
Pete Basin
Little Reservoir
Cow Camp
Anderson Spr No 1
Anderson Spr No 2
Wildcat Spr
Landing Strip
Dry Creek Spr
Deer Mountain
Granite Mountain
Telephone Canyon
71 Camp
Anderson

4-372
JARBIDGE
SOUTH PORTION

ROADLESS AREA JARBIDGE, #372 - 26,400 ACRES

1. Description

The Jarbidge Roadless Area on the Jarbidge Ranger District is located 65 miles northeast of Elko, Nevada, and 80 miles southwest of Twin Falls, Idaho. This area bounds the Jarbidge Wilderness on three sides. Access to this area is limited and it requires several hours of driving over rough gravel roads to get to the area.

The toporgraphy of this area varies from gentle slopes to steep sagebrush grass slopes to rugged, steep, rocky slopes with deep canyons. The area on the west slope of the Jarbidge Mountains ranges from 10,800 feet to about 7,000 feet in a distance of two miles. The soils are mainly of rhyolite origin and are moderately erosive when disturbed. Rock types are primarily Tertiary rhyolites.

This area lies within the Intermountain sagebrush/sagebrush steppe, and western ponderosa forest ecosystems (3130-49 & 10). Vegetation varies greatly with change in elevation. Sagebrush and grass dominate the lower slopes with numerous other browse and forbs plants. Limber pine is found at the high elevations with subalpine fir scattered throughout the area. Mahogany is abundant in the middle elevations with scattered stands of aspen, also located at the mid elevations. Cottonwood trees are predominant along the streams at low elevations.

There are numerous intermittent streams, seeps, and small meadows. Air quality is excellent. Soils are generally moderately developed at the lower and mid elevations and poorly developed and thin in the higher elevations.

The primary current uses are livestock grazing (1,380 AUMs), dispersed recreation (27,000 RVDs primarily hunting and backpacking), and mining. Deer and upland game bird hunting, and an important entry point to the Jarbidge Wilderness (Camp Draw) are the attractions of this area.

The old mining town of Jarbidge is close to this area and numerous old mines can be found within the area.

2. Capability

There are numerous low standard hunting and livestock roads on the west side of the unit. Much of the area classed as roadless and undeveloped contains low standard roads, hunting camps, an existing Forest Service station with sheep camps, pasture fences and a small building, mining roads and exploration pits.

In the area, opportunities for solitude are excellent with most recreation use occurring during hunting season. Primitive recreation opportunities are abundant and there are many species of wildlife. The natural integrity is very high except for the extreme western edge where considerable development has taken place.

There are no threatened, endangered, or sensitive wildlife species in this area. California bighorn sheep were reintroduced into the existing wilderness in 1981 but have dispersed away from the area. There are two plants identified to be sensitive in this area. These plants were located in the Jarbidge Wilderness.

There are no special challenging experiences. A special feature of this area is the joint boundary with the Jarbidge Wilderness.

Several modifications were made in the roadless area boundary. Starting in the northest quadrant of the roadless area and working around in a clockwise direction the changes are as follows: the area above the Pole Creek Administrative Site was deleted due to the significant wood cutting activity occurring in the area. A deletion and an addition are located adjacent to the Hummingbird Spring Road. The road is used by sheepherders for trailer access during the grazing season. An area including the headwaters of Canyon, Goat, Cottonwood and Camp Creeks has been added to the recommended wilderness area. An alternative boundary would delete the entire southern segment with numerous structural improvements from the roadless area. Range allotments within this segment are under intensive management. The area also receives a considerable amount of off-road vehicle use. The road corridor above the Pine Creek campground was added into the roadless area, as it is no longer passable by vehicles.

3. Availability

Major recreation use of this area is related to big game hunting for mule deer. This use will probably remain the same. Bird hunting is also popular and attracts people in the fall of the year. There is a limited amount of fishing in the West Fork of Jarbidge River which is planted by the Nevada Department of Wildlife.

Motorized dispersed recreation use occurs on parts of the area as well as a small mount of snowmobiling and some hiking. There are no areas designated for campground development, but there are many areas that are used for dispersed camping and backcountry hiking. The majority of the area is rugged and scenic and is very much like the Jarbidge Wilderness Area.

The area is a high water producing area and has good to excellent watershed conditions. The major problems that occur originate on the rocky or naturally barren areas. This will continue to be a very important watershed area.

The east and north parts of this area are being grazed by livestock under intensive management systems ranging from deferred systems to rest-rotation. These areas have good potential for forage production and there are numerous water developments and fences. The west side, including the area that drains into the West Fork of the Jarbidge River, is closed to grazing and should remain closed.

Wood cutting is very popular and the west side, excluding Jarbidge Canyon, has areas of dead aspen. The area near Pole Creek is also a popular wood cutting area. The remainder of the area has poor access and only scattered stands of aspen. There are less than 50 Christmas trees cut from this area each year. No timber values except for small quantities of firewood are present on this site.

On the west side of the area, recreation use for deer and game bird hunting is very heavy adjacent to and within the west one-half of this unit. Much of this hunting activity is done via motorized access on primitive roads.

The overall potential to increase dispersed recreation, both motorized and nonmotorized is high.

This is an important deer hunting area (State hunting unit #7). All portions of this unit are used by summering deer with the lower elevations important for spring/fall deer range. A very small number of deer winter in the Dry Creek area, especially during mild winters. The potential for improving the present deer ranges is low.

Watershed condition and values are only moderate. Mules Ear (Wyethia sp) has invaded and is still increasing on areas of this unit, especially in upper 76 Creek. This very poor watershed vegetative species is reducing the watershed conditon and increasing erosion and overland flow of water. A moderate to high potential to improve this watershed condition exists.

Livestock operations consist of cattle in the lower elevations and sheep in the upper elevations. Forage produciton is generally fair with limited potential for improvement. The sheep ranges are under an improved management plan. There is limited potential to improve the ecological condition and diversity with the exception of controlling the expansion of Mules Ear.

The mining potential of the area has been rated high by the geological survey. The Camp Creek area has a known barite deposit which is high quality barite. The area in Jarbidge Canyon has produced over $10 million in gold and there are many old mining claims. At the present, there are two miners in the area doing exploratory work. Molybdenum, copper, and tungsten are also known to exist in the northwest part of the area. Minerals potential is rated high for the west one-half of this unit. Barite and gold are the primary minerals with known deposits of both present. The potential of increased mining activity is very high.

Archaeological sites consist of flint and obsidian chips and signs of early American activities around springs and perennial water sites. No unusual or significant cultural sites are known to be present.

Fire potential is low over most of the area and the potential for large fires is low due to rock and barren areas. The exceptions are the small areas of cheat grass at lower elevations near the National Forest boundary.

Endemic aspen diseases are present and are considered to be a normal occurrence.

4. Need

The roadless area adjoins the exisitng Jarbidge Wilderness which is lightly used at the present time.

The northern portion of the area is 90 miles from Twin Falls, Idaho, on 16 miles of unsurfaced road.

The local people (Jarbidge residents and ranchers) are not in favor of designating more wilderness in this area. They would favor refining the boundary to reduce conflicts. The wilderness oriented public favors wilderness.

During the RARE II process, moderate interest was shown to add portions of this unit to the Jarbidge Wilderness. Generally, public opinion, both locally and nonlocally, did not object to adding manageable portions of this unit to the Jarbidge Wilderness. Strong support for adding this portion was not present. The RARE II decison endorsed five separate areas totaling 28,160 acres as wilderness. The remainder of the area was allocated to nonwildernss.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses ar each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

Under the Preferred Alternative (Alt. K) 26,400 acres are recommended for wilderness designation. The area has a high degree of natural integrity and opportunity for solitude. Furthermore, boundary adjustments have been used to effectively minimize significant resource conflicts.

The boundary of this area (see map) largely eliminates uses that would conflict with wilderness such as mining and harvesting of woodland products. Upon legislative enactment this area would be withdrawn from mineral entry subject to valid existing rights. This area would be closed to ORV use and any other activities not permitted in wilderness. The value of activites foregone is not significant. The exception is minerals where the values are not known but could be significant.

The remaining area is designated for non-wilderness uses. The majority of the mining claims occur in this area. Some other resource activites such as harvesting woodland products, implementing range and wildlife habitat improvements occur in this area. Opportunities also exist to enhance both motorized and non-motorized dispersed recreation. It is estimated that a portion of the area would not be available for wilderness consideration during the next plan revision.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 372 ROADLESS AREA

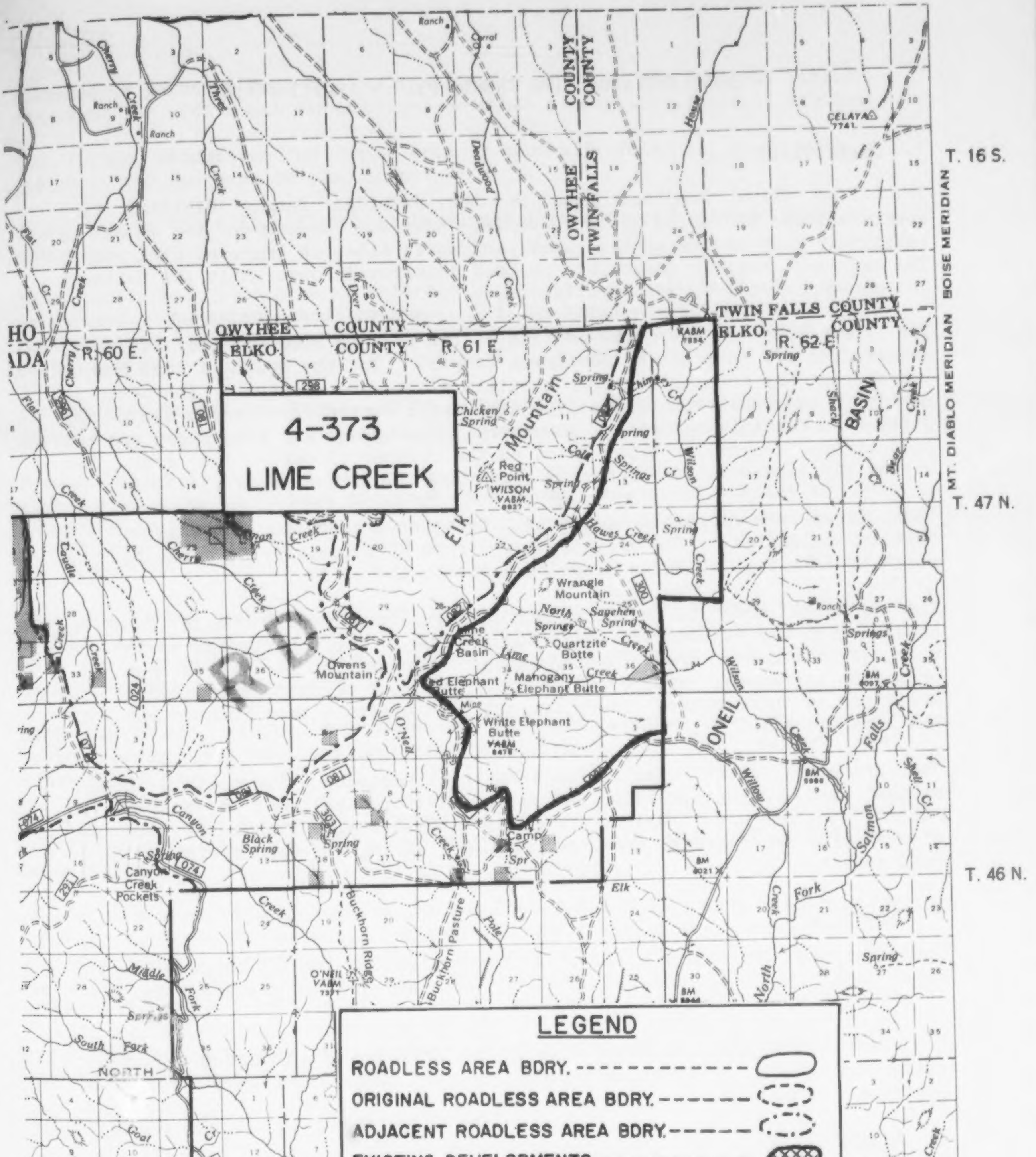
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						71035			67975
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	71035		71035	94475			94475		
All high except Lvstk									
All high except WL					94475				
All moderate		71035							
Wilderness	23340	23340	23340			23340		94475	26400

TABLE B—IMPACTS ON WILDERNESS CHARACTER 372 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Integrity and naturalness will be maintained on 23340 acres. Low emphasis management on remaining area	Integrity and naturalness will be maintained on 23340 Acres. Increased improvement activities may impact integrity on non-wilderness portion.	Same as A	Entire area managed at low emphasis level. Integrity and naturalness may be impacted.	Higher management emphasis on all resources other than wildfire. Integrity and naturalness may be impacted	Current management on 71135 acres, wilderness for 23330. Integrity may be impacted. on on the non-wilderness portion.	Same as E	Integrity is rated very high except on the western edge Naturalness is also high.	Same as H
SOLITUDE	Solitude will remain high on wilderness portion.	Same as A	Same as A	Solitude may be reduced	Same as E	Same as A	Same as E	Solitude is considered excellent.	Same as A
PRIMITIVE RECREATION	Same as Solitude	Same as A	Same as A	Primitive recreation may be reduced	Same as E	Same as	Same as E	Primitive recreation is excellent	Same as
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as A	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J	None exist	None exist

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 372 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	23,340	23,340	23,340	-	-	23,340	-	94,475	26,400
Dispersed Rec	MRVDS	2.52	2.60	2.52	-	-	2.52	-	36.82	2.85
NONWILDERNESS	ACRES	71,035	71,035	71,035	94,475	94,475	71,035	94,475	-	67,975
Dispersed Recreation										
Non-Motorized	MRVDS	.711	.796	.711	.956	1.21	1.05	.956	-	1.01
Motorized	MRVDS	16.35	22.45	16.35	21.69	35.61	16.01	21.69	-	15.32
Wildlife Nonstructural Habitat Improv	ACRES	23.15	27.05	23.15	30.72	30.34	23.14	30.72	-	23.15
WL/Fish Use	MWFUDS	5.87	5.90	5.87	6.30	6.34	5.87	6.30	4.18	5.87
Livestock	MAUMS	21.46	22.05	21.46	21.46	22.15	22.05	21.46	21.46	21.10
Fuelwood	MCORDS	.229	.302	.229	.304	.504	.229	.304	-	.219
Xmas Trees	MTREES	.047	.073	.047	.062	.187	.047	.062	-	.045
Sediment Yield	MTONS									
Soil Improvement	ACRES	.085	.158	.085	.114	1.22	.085	.114	-	.085
Minerals	CASES	5.31	9.23	5.31	3.82	14.90	9.23	3.82	9.23	9.23



4–373
LIME CREEK

LEGEND

ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND

10/30/84

T. 16 S.
T. 47 N.
T. 46 N.
T. 45 N.
MT. DIABLO MERIDIAN
BOISE MERIDIAN
R. 60 E.
R. 61 E.
R. 62 E.
OWYHEE COUNTY
TWIN FALLS COUNTY
ELKO COUNTY
Cherry Creek
Three Creek
Deadwood
Deer Creek
Chicken Spring
Elk Mountain
Red Point
WILSON VABM 6827
Cold Springs Cr
Chimney Cr
Hawes Creek
Wilson Creek
Wrangle Mountain
North Springs
Sagehen Spring
Lime Creek Basin
Quartzite Butte
Mahogany Elephant Butte
Red Elephant Butte
Owens Mountain
White Elephant Butte
O'Neil
Black Spring
Canyon Creek Pockets
Canyon
Camp
Buckhorn Ridge
Buckhorn Pasture
O'NEIL VABM 7371
ONEIL BASIN
Willow Creek
Salmon Falls Creek
Shell Cr
Bear Creek
North Fork
Middle Fork
South Fork
NORTH
Goat Cr
Scott Creek
CELAYA 7741
Ranch
Corral
Spring
BM

ROADLESS AREA LIME CREEK, #373 - 11,513 ACRES

1. Description

The Lime Creek Roadless Area on the Jarbidge Ranger District lies approximately 60 miles north of Wells, Nevada. Access to the area is relatively easy on the north, west, and south sides on improved dirt roads. The southeast area is accessible on good unimproved roads while the northest is accessible only by jeep trails.

The topography on the north portion of the area is somewhat flat with an abrupt drop off into the Wilson Creek Canyon. To the south of this bench, the topography changes to steep mountain slopes and valleys. The bench is mostly a sagebrush-bunchgrass type with small stringers of aspen along the streams. Mountain mahogany, snowberry, bunchgrass and some aspen are the predominate vegetation types found on the steeper slopes. The area lies within the Intermountain sagebrush/sagebrush steppe ecosystem (3130-49).

Rock types are Paleozoic sediments, Cretaceous granitic intrusives, and Tertiary volcanics. The elevation runs from 6300 feet on the bench to the north to 8476 feet at White Elephant Butte on the south.

The adjacent area to the north and east is either public domain land or private land and is used primarily for grazing. The area to the south and west is National Forest system lands. The area to the south has six prospects and mines, some of which have a history of past production. In addition to these mines, there are numerous claims staked both on and off the roadless area.

The primary current uses of the area are livestock (1850 cattle animal months) and recreation (3500 Recreation visitor days) most in the form of hunting and ORV use. Wilson Creek has catchable size fish in it and the area suports sage grouse, antelope, and deer during the late spring to early fall season.

2. Capability

Opportunities for solitude and primitive recreation are low because of the open topography, and the area does not have any special features that make it unique.

The natural integrity and appearance of the area are low to moderate due to unimproved roads, vegetative manipulation and range improvements (fences, pit tanks, troughs).

3. Availability

Recreation use is primarily big game and upland game bird hunting. There is little opportunity for campground development, but potential for dispersed recreation is moderate to high.

The watershed value is moderate and the watershed is in good condition with little potential for improvement.

Firewood is gathered from the small stringers of aspen and mahogany stands. Potential for additional firewood use or other timber activities is limited.

The forage production on this area is generally fair to good with a potential for increase in some areas.

There are no known significant archaeological or cultural sites within the area.

USGS classifies this area as moderate in prospective potential for gold, molybdenum., tungsten, and copper. This is based on sediment-intrusive contacts and veins known in the area. Most of the unit is staked with mining claims.

All the area except 103 acres, which are private, is in the National Forest system

Fire potential is moderate to high because of the abundance of flashy fuels, although no major fires have occurred recently. Insect and disease is not a problem.

4. Need

The Lime Creek Roadless Area lies approximately 60 miles north of Wells, Nevada, and 45 miles southwest of Twin Falls, Idaho. The nearest wilderness area is the Jarbidge Wilderness approximately 10 miles to the southwest. Salt Lake City is the closest large population center.

The sagebrush steppe ecosystem is well represented throughout the Intermountain Region. Wilderness designation is not needed for representation.

During the RARE II evaluation, both local and nonlocal public input favored nonwilderness classification of this area. It was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessins, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only additonal comment was one expressing an opinion that this area lacks wilderness characteristics.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvement, as well as harvesting of woodland products are part of the scheduled management prescribed for the area. ORV use will increase. The area has not been withdrawn from mineral entry. The area has moderate potential for oil and gas leasing. Potential for hardrock minerals is considered to be moderate. The structural range and wildlife habitat improvements, increased ORV use and unscheduled mining impacts may reduce the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 373 ROADLESS AREA

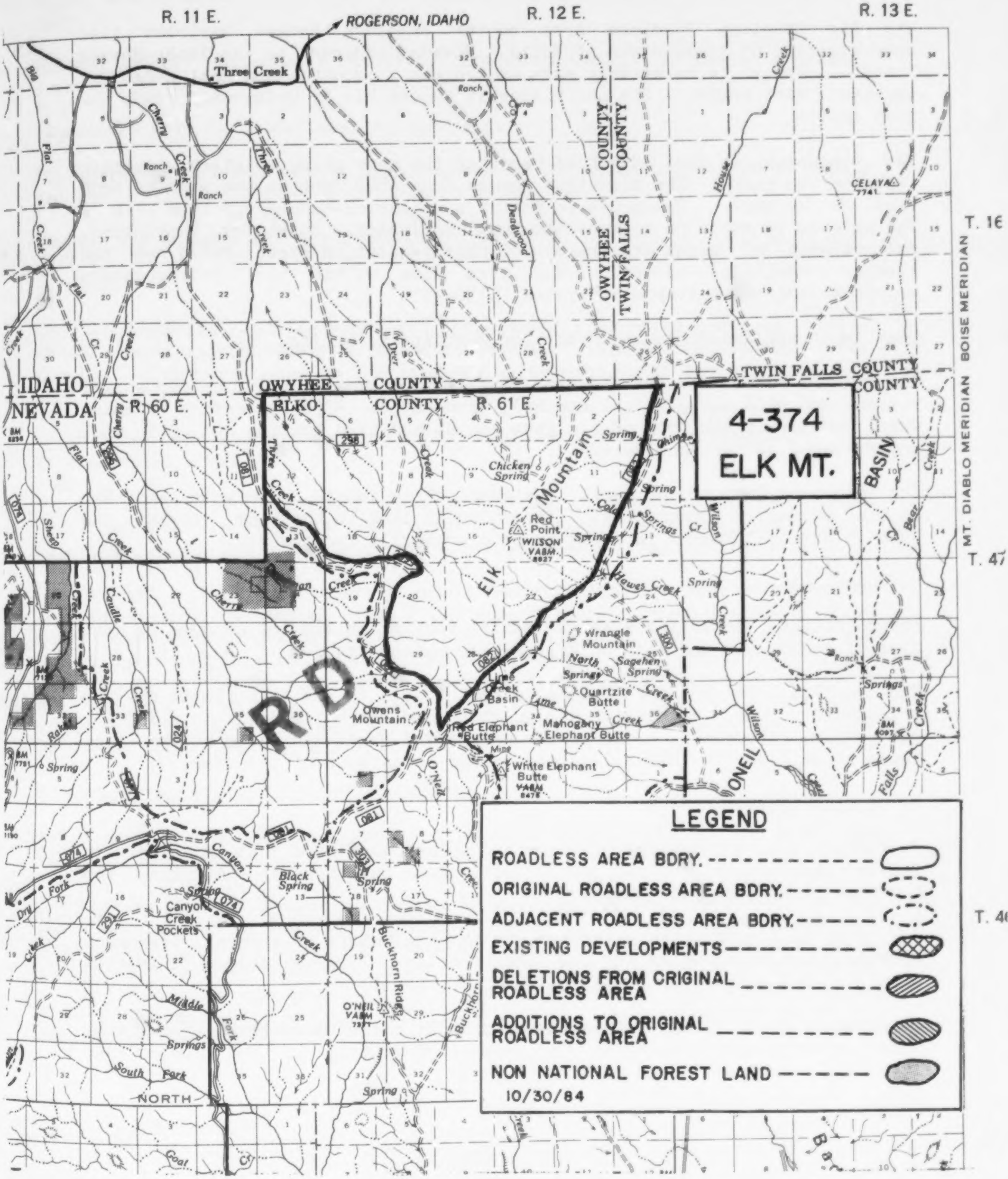
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						11507			11507
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					11507				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			11507	11507			11507		
All high except Lvstk									
All high except WL									
All moderate		11507							
Wilderness	11507							11507	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 373 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be at a slightly higher than present. Same as J	Management Will be at a level lower than present. Same as J	Same as D	Management emphasizes noncommodity resourcees. Integrity and naturalness will remain low.	Management will remain at present level. Same as J	Same as D	Integrity and naturalness are considered low due to unimproved roads and existing range improvements.	Same as H
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to open topography.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation is same as solitude	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 373 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	11,507	-	-	-	-	-	-	11,507	-
Dispersed Rec.	MRVDS	4.99	-	-	-	-	-	-	4.99	-
NONWILDERNESS	ACRES	11,507	11,507	11,507		11,507	11.507	11.507	-	11.507
Dispersed Recreation										
Non-Motorized	MRVDS	0	.15	.13	.13	.17	-	.13	-	-
Motorized	MRVDS	-	4.01	2.87	2.87	2.87	3.00	2.87	-	3.00
Wildlife Nonstructural Habitat Improv	ACRES	4.87	4.88	4.34	4.8	4.34	4.34	4.87	4.34	4.34
WL/Fish Use	MWFUDS	.80	.80	.80	.80	.81	.80	.80	.80	.80
Livestock	MAUMS	2.62	.264	2.62	2.62	2.65	2.65	2.62	2.62	2.65
Fuelwood	MCORDS	-	.01	.01	.01	.01	.01	.01	-	.01
Xmas Trees	MTREES	-	.04	.04	.04	.02	.03	.04	-	.03
Sediment Yield	MTONS									
Soil Improvement	ACRES	.03	.03	-	-	.24	.02	-	.03	.02
Minerals	CASES	1.0	1.0	.42	.42	1.74	1.0	.42	1.0	1.0


R. 11 E.
ROGERSON, IDAHO
R. 12 E.
R. 13 E.
Three Creek
Ranch
Corral
CELAYA 7741
OWYHEE COUNTY
TWIN FALLS COUNTY
Deadwood
House Creek
T. 16
IDAHO
NEVADA
R. 60 E.
OWYHEE COUNTY
ELKO COUNTY
R. 61 E.
TWIN FALLS COUNTY
COUNTY
4-374
ELK MT.
BASIN
Chicken Spring
Elk Mountain
Red Point
WILSON VABM 8627
Cold Springs
Hawes Creek
Wilson Creek
Bear Creek
T. 47
Wrangle Mountain
North Springs
Sagehen Spring
Quartzite Butte
Lime Creek Basin
Owens Mountain
Red Elephant Butte
Mahogany Elephant Butte
White Elephant Butte VABM 6475
O'Neil
ONEIL
Falls Creek
Springs
RD
Canyon
Black Spring
Canyon Creek Pockets
Dry Fork
Buckhorn Ridge
O'NEIL VABM 7377
Middle Fork
South Fork
Springs
NORTH
Goat Cr
T. 46
MT. DIABLO MERIDIAN
BOISE MERIDIAN
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA ELK MOUNTAIN, #374 - 12,575 ACRES

1. Description

The Elk Mountain Roadless Area on the Jarbidge Ranger District lies approximately 65 miles north of Wells, Nevada, adjacent to the Idaho-Nevada border. Access is relatively easy on the east, south, and west sides by improved dirt roads. The north side is accessible by unimproved roads or jeep trails.

The topography is that of a flat bench on the west going to steep mountain sloes on the east. The elevation ranges from 6500 feet on the west to 8800 feet on the east. The bench is mostly a sagebrush-bunchgrass type with a few patches of aspen in some of the small drainages. Snowberry, bunchgrass, and patches of aspen are the predominant vegetation types found on the steeper mountain slopes. The area lies within the Intermountain sagebrush/sagebrush steppe ecosystem (3130-49).

Rock types are Paleozoic sediments and Tertiary volcanics.

The primary current use of the area is livestock grazing (1800 cattle animal months and 5000 sheep animal months), recreation (4300 recreation visitor days) mostly in the form of big game and upland bird hunting and ORV use, and firewood gathering (100 cords).

The adjacent land to the north is either public domain or private land and is used primarily for grazing. The adjacent land to the east, south, and west is National Forest land and is used primarily for grazing.

2. Capability

Opportunities for solitude and primitive recreation are low because of the ease of access and the lack of topographic screening.

The natural integrity and appearance of the area is low to moderate due to unimproved roads, vegetative manipulation and range improvements (fences, pit tanks, troughs). Some of the unimproved roads are shown on the map. These roads lower the natural integrity and appearance of the area.

3. Availability

Recreation use is primarily big game and upland game bird hunting. There is little opportunity for campground development but there is potential for increased dispersed recreation.

The area is a productive watershed and the headwaters of several drainages provide irrigation water for the ranches below. This watershed is in good condition and has little potential for improvement.

Firewood is being gathered from the patches of aspen at an increasing rate. These stands have potential for more productivity if put under more intensive management.

The forage production is generally fair to good with potential for increased forage production in some areas.

There are no known significant archaeological or cultural sites within the area.

Mineral use of the area is almost nil and the potential is low to moderate. A few claims are staked in the south end of the unit.

The entire area is on National Forest land.

Fire potential is moderate to high because of the abundance of flashy fuels and one or two samll fires occur almost every year.

Insects and disease are not problems.

4. Need

The Elk Mountain roadless area lies approximately 60 miles north of Wells, Nevada, and approximately 50 miles southwest of Twin Falls, Idaho. The nearest wilderness area is the Jarbidge Wilderness which is approximately nine miles to the southwest.

The sagebrush steppe ecosystem is well represented throughout the Intermountain area.

During the public involvement phase of RARE II, the majority of both local and nonlocal respondents expressed a desire for continuation of nonwilderness management. This area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process. The only additional comment was one expressing an opinion that this area lacks wilderness characteristics.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and non-structural range and wildlife habitat improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase. The area has not been withdrawn from mineral entry. Mineral potential for the area is considered to be low. The structural range and wildlife habitat improvements along with the increased ORV use may reduce the amount of wilderness available for future considerations.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 374 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						12575			12575
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					12575				
All low			12575	12575			12575		
All high except Lvstk									
All high except WL									
All moderate		12575							
Wilderness	12575							12575	

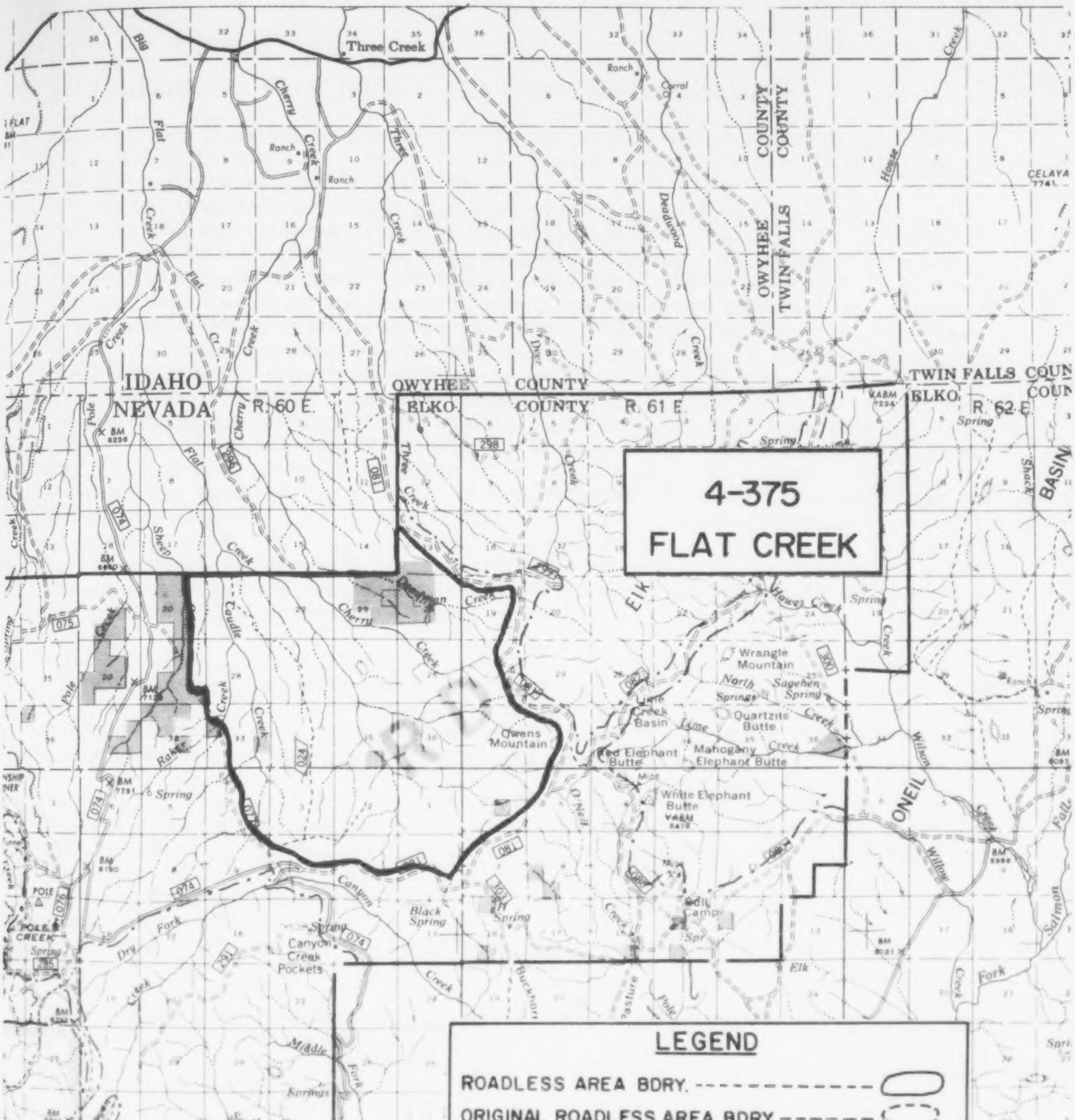
TABLE B—IMPACTS ON WILDERNESS CHARACTER

374 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be at slightly higher level than the present Same as J.	Management will be at level lower than present. Same as J	Same as D	Management emphasis will be on noncommodity resources. Same as J	Management will remain at present level. Same as J	Same as D	Integrity and naturalness are low due to numerous unimproved dirt roads in the area.	Same as J
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to the lack of topographic screening	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 374 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	12,575	-	-	-	-	-	-	12,575	-
Dispersed Rec	MRVDS	5.40	-	-	-	-	-	-	5.40	-
NONWILDERNESS	ACRES	-	12,575	12,575	12,575	12,575	12,575	12,575	-	12,575
Dispersed Recreation										
Non-Motorized	MRVDS	-	.162	.144	.144	.186	-	.144	-	-
Motorized	MRVDS	-	4.34	3.11	3.11	3.11	3.25	3.11	-	3.25
Wildlife Nonstructural Habitat Improv	ACRES	5.28	5.28	4.70	4.70	5.20	4.70	4.70	5.28	4.70
WL/Fish Use	MWFUDS	.870	.871	.864	.864	.871	.864	.864	.870	.864
Livestock	MAUMS	2.83	2.87	2.83	2.83	2.87	2.87	2.83	2.83	2.87
Fuelwood	MCORDS	-	.056	.042	.042	.042	.042	.042	-	.042
Xmas Trees	MTREES	-	.014	.009	.009	.009	.009	.009	-	.009
Sediment Yield	MTONS									
Soil Improvement	ACRES	.014	.014	.012	.012	.121	.012	.012	.014	.012
Minerals	CASES	1.09	1.09	.464	1.85	1.09	.464	1.09	1.09	1.09


4-375
FLAT CREEK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
IDAHO
NEVADA
OWYHEE COUNTY
ELKO COUNTY
TWIN FALLS COUNTY
R. 60 E.
R. 61 E.
R. 62 E.
Three Creek
Owens Mountain
Wrangle Mountain
Quartzite Butte
Red Elephant Butte
Mahogany Elephant Butte
White Elephant Butte
Canyon Creek Pockets
Black Spring
Little Creek Basin
ONEIL BASIN
POLE CREEK
Edl Camp

ROADLESS AREA FLAT CREEK, #375 - 12,721 ACRES

1. Description

The Flat Creek Roadless Area is an open sagebrush type with scattered stands of aspen and fir located 150 miles northeast of Elko, Nevada, and 70 miles southwest of Twin Falls, Idaho. The area is a plateau-type benchland and the head of the Three Creek, Caudle Creek, and Flat Creek drainages. These drainages are extremely rocky and steep and difficult to traverse. The Pole Creek Canyon Creek Road provides easy access to the south side of this area and primitive roads along the bench areas allow access into the area.

This area is an Intermountain sagebrush/sagebrush steppe (3130-49) ecosystem type. Elevations range from 7000 feet to 9000 feet. The area is gradually reverting to a grass-brush type because of improved management.

The rock type is Tertiary welded tuffs.

Recreation use is low in this area and estimated to be 1600 RVDs mainly during deer season. The area contains portions of three cattle allotments ond one sheep allotment with 3800 cattle animal months and 100 sheep animal months. These allotments are under intensive management and are very productive.

Antelope in groups of 40 to 100 can be found in the area and appear to be increasing. Sage grouse, blue grouse, Hungarian partridge, and chukars are found and hunted in this area. Mule deer are also found here. There is an abundance of raptors, small mammals, and nongame throughout the area with a few fish in the larger creeks.

The Jarbidge Mountains are visible to the west and Elk Mountain to the east. There are no special attractions within the area.

2. Capability

There are primitive travelways along the ridge tops of nearly all the plateau areas.

The area is small in size with roads around the perimeter. The natural integrity and appearance of the area is moderate with several areas of vegetative manipulation, water developments, and pipelines. Several fences have also been constructed.

Opportunities for solitude and primitive recreation are moderate or low due to the small size and open terrain. There are no special features or challenging experience opportunities.

There are no threatened, endangered, or sensitive species in this area and no historical or scientific study sites.

3. Availability

The recreation potential of the area is moderate with the majority of the use related to hunting. There is very little need at the present time for any developed recreation in this area.

The area has excellent potential for wildlife species that prefer a sage-grass type such as antelope or sharp tailed grouse. This area rates high for wildlife and many species of nongame animals, raptors, and birds.

This area produces high quality water, and the watershed is in good to excellent conditon because of the good ground cover of grass. There are no areas that need watershed rehabilitation at the present time.

Livestock grazing is the primary use in this area, and the three cattle and part of one sheep allotments are under intensive management systems. There are many potential range projects on these allotments including spraying, burning, pit tanks, water troughs, waterlines, and fences. This is a highly productive range site and has potential to carry more cattle than currently permitted.

There are only a few areas of aspen and alpine fir that are suitable for firewood cutting and Christmas trees.

The USGS rates this area low in mineral potential and oil and gas production with no geothermal sites.

There are no known cultural or historical sites and no land uses except for a small rider's cabin in the head of Caudle Creek.

There have been very few fires in this area because of the light fuels of grass and brush. There is potential for very fast moving fires in these fuel types and hot summer fires could be detrimental to the vegetation. There are few, if any, insect and disease problems in the area. There are approximately 720 acres of private land within the area with the majority along the boundary.

4. Need

This area is about 5 miles from the existing Jarbidge Wilderness.

The area is located 150 miles from Elko, Nevada, and 70 miles from Twin Falls, Idaho, which are the major population areas.

During the RARE II process, both local and nonlocal public input favored nonwilderness designation, and the area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public based on request. This was accomplished through individual and group contacts, briefing sessions, and open hosues at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This roadless area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and non-structural range and wildlife habitat improvement, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use will increase. The area has not been withdrawn from mineral entry. The area has a low potential for hardrock minerals and oil and gas. The greatest impact on the amount of wilderness available for future consideration will be structural range and wildlife habitat improvements and increased ORV use. The area's small size and the amount of existing improvements will enhance the probblem of future wilderness availability.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

375 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation						12721			12721
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					12721				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			12721	12721			12721		
All high except Lvstk									
All high except WL									
All moderate		12721							
Wilderness	12721							12721	

TABLE B - IMPACTS ON WILDERNESS CHARACTER

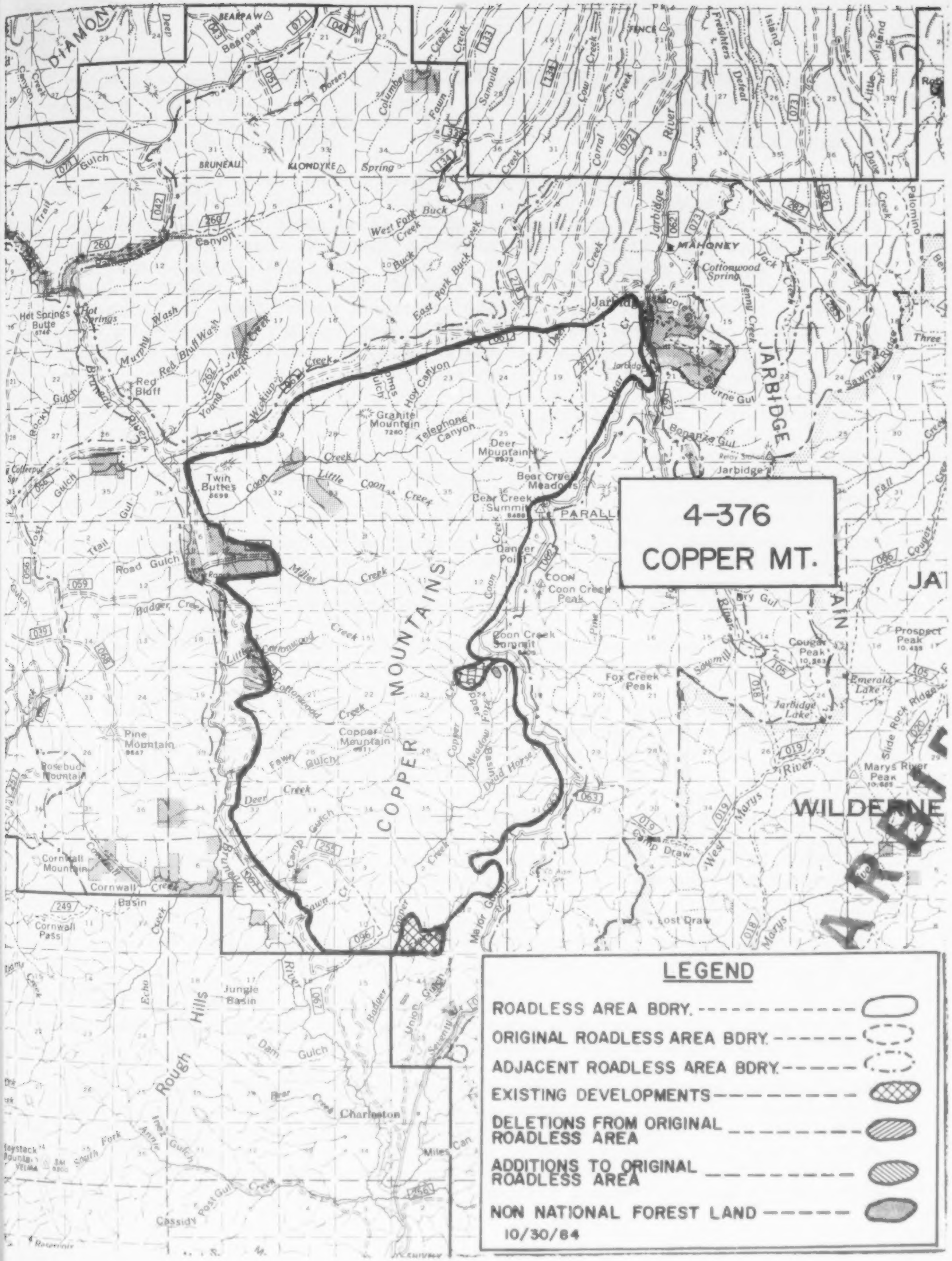
375 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be slightly higher than present. Integrity and naturalness may be reduced	Management Will be at level lower than present. Same as J	Same as D	Management will emphasize non-commodity resources. Integrity may be reduced by habitat improvement projects.	Management will remain at the present level. Same as J.	Same as D	Integrity and naturalness is rated as moderate due to existing range improvements.	Same as H
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to small size and openness of terrain.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as Solitude	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS

375 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	12,721	-	-	-	-	-	-	12,721	-
Dispersed Rec	MRVDS	5.46	-	-	-	-	-	-	5.46	-
NONWILDERNESS	ACRES	-	12,721	12,721	12,721	12,721	12,721	12,721	-	12,721
Dispersed Recreation										
Non-Motorized	MRVDS	-	.164	.147	.147	.188	-	.147	-	-
Motorized	MRVDS	-	4.39	3.14	3.14	3.14	3.29	3.14	-	3.29
Wildlife Nonstructural Habitat Improv	ACRES	5.34	5.34	4.76	4.76	5.25	4.76	4.76	5.34	4.76
WL/Fish Use	MWFUDS	.880	.881	.873	.873	.881	.873	.873	.880	.873
Livestock	MAUMS	2.87	2.90	2.87	2.90	2.90	2.87	2.87	2.90	2.87
Fuelwood	MCORDS	-	.058	.043	.043	.043	.043	.043	-	.043
Xmas Trees	MTREES	-	.014	.009	.009	.009	.009	.009	-	.009
Sediment Yield	MTONS									
Soil Improvement	ACRES	.014	.014	.011	.011	.122	.011	.011	.014	.011
Minerals	CASES	1.91	1.91	.473	.473	1.91	1.91	.473	1.91	1.91



4-376
COPPER MT.

LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
COPPER MOUNTAINS
JARBIDGE
WILDERNE
Copper Mountain
Granite Mountain
Twin Buttes
Deer Mountain
Bear Creek Summit
Coon Creek Peak
Coon Creek Summit
Danger Point
Pine Mountain
Rosebud Mountain
Cornwall Mountain
Hot Springs Butte
Red Bluff
Mahoney
Jarbidge
Cougar Peak
Prospect Peak
Marys River Peak
Jarbidge Lake
Emerald Lake
Fox Creek Peak
Jungle Basin
Rough Hills
Charleston
Bruneau River
Jarbidge River
Marys River
Cornwall Pass
Cornwall Basin

10/30/84

ROADLESS AREA COPPER MOUNTAIN, #376 - 34,593 ACRES

1. Description

The Copper Mountain Roadless Area is located on the east side of the Mountain City Ranger District and overlaps onto the Jarbidge Ranger District. This unit is approximately 56 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Charleston/Jarbidge Road, by the low standard Bruneau River Road, and by the high standard Jarbidge/Twin Falls Road on the east side of this unit. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main roads listed above. No public access is present on the north 1/2 of the west side of this unit due to lack of rights-of-way through private land.

Topography is very steep and rugged. Elevations vary from a low of approximately 5,300 feet to nearly 10,000 feet above sea level at Copper Mountain. Several perennial streams exist with a native trout fisheries. Air quality is excellent. Soils are generally deep and well developed except for the very upper elevations of Copper Mountain which nears the timber line. Precipitation varies from about 14 inches to 35 inches or more annually. Soil erosion potential near the top of Copper Mountain is high. Predominant wildlife species are: mule deer, cougar, coyotes, badger, beaver, bobcats, blue grouse, and sage grouse. This unit contributes the major portion to the volume of the water in the Bruneau River headwaters.

Rock types are Precambrian/Cambrian sediments and metamorphics, Cretaceous granitic intrusives, and Tertiary volcanics.

Predominant vegetation is sagebrush/grass type. Stands of alpine fir/limber pine exist on north/northwest slopes and near the top of Copper Mountain. Aspen stands are small and scattered. Nearly all major drainages contain a narrow band of riparian vegetation consisting of aspen, mountain birch, small meadow vegetation, and other water sensitive plants. Numerous springs, seeps and small meadows occur throughout, and the are is productive grazing land for both wild and domestic animals. The area lies within the Intermountain sagebrush/Great Basin sagebrush, sagebrush steppe, western pondersoa forest ecosystem (3130-10, 31, 49).

This is a very scenic area in the spring and fall. Wild flowers are abundant in the spring and the aspen provide spectacular colors in the fall.

The area includes the Bear Creek watershed where water is taken directly from the creek for municipal water for Jarbidge. There is a cabin near Coon Creek Summit which is used by a livestock operator. There are also diversion ditches and dams on Copper Creek and Miller Creek.

The primary current uses are livestock grazing (cattle - 3,257 AUMs, sheep 5,171 AUMs), dispersed recreation in the form of hunting for deer, game birds, and cougar, and mining claims and exploration. Fence structures and water troughs exist, but to a minor degreesince much of the area is grazed by sheep. The unit's appearance is that of a large mountainous mass surrounded by deep canyons and rolling foothills.

The chief attraction is the large Copper Mountain land mass with elevations nearing 10,000 feet, heavily timbered north slopes and dispersed recreation hunting for deer, cougar, and game birds. Annual recreation use is estimated to be 2,400 RVDs.

2. Capability

The majority of the area is sagebrush and grass with scattered stands of aspen and alpine fir. Opportunity for solitude is low because of the open country. Primitive recreation opportunities are available, but they are not as challenging as the more rugged areas to the east.

Extensive but localized mining activity has occurred in the lower reaches of Badger Creek (280 acres). Mine buildings, adits, and other mining disturbance are present near Coon Creek Summit (80 acres). Both of these areas no longer meet the raodless area criteria and have been deleted from further analysis.

There are no special challenging experiences. There are no special features, threatened or endangered plant and animal species, or areas of special historical or scientific study opportunities.

The natural appearance and integrity of the upper elevations (above 7,800 feet) is high with the lower elevations varying from low to moderate because of the low standard roads, diversion ditches, and vegetative manipulation.

3. Availability

Active exploration and mining area are presently small in total acreage. Overall mining potential is high.

The major recreational use is related to hunting, and it is presently at a high level. The area does not have other recreation attractions or potential for attracting recreationists.

This unit lies within one of the more important deer hunting and cougar hunting areas in the state. All portions are used by summering deer and for spring/fall range. The upper portions of the very important Bruneau River deer winter range are located in the northewst half of this unit. The potential to improve summer deer range is low since it is generally aleady in good to excellent condition. The potential to increase deer winter range is high but would be quite costly. The potential to improve species diversity is high by reintroducing elk, bighorn sheep, and game birds, primarily sharptail grouse.

Watershed condition and value is high since this unit produces the majority of the Bruneau River headwaters flow. The Bear Creek area will continue to be used for domestic water in the town of Jarbidge and demand will increase. Overall watershed condition is good to excellent with the exception of a few small sites on upper Copper Mountain and Seventy-Six Creek. Watershed rehabilitation work has not been attempted and does not appear to be feasible in this area.

READEX FICHE

Livestock operations consist of cattle and sheep. Because cattle are at capacity, the potential to increase numbers is low. There may be potential to increase sheep AUMs. All livestock operations, except for the northwest portion of this unit (scheduled to be completed in 1985 or 1986) are managed under approved management plans. Forage production and condition is good to excellent with a few exceptions primarily due to recent wildfires and the adverse weather conditions near the top of Copper Mountain.

The Bear Creek drainage has been closed to livestock for many years and will remain closed.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access and higher demand occurred.

The USGS lists this area as having a high mineral potential. Twelve known mineral deposts occur in or immediately adjacent to this unit. Potential highly productive geologic conditions occur over most of this unit. Gold placering on a small scale recently occurred in Badger Creek and the Union gulch (outside, but immediately adjacent) areas. Tungsten, copper, gold, and silver occur within the unit. Regional geologic trends (barite and disseminated gold) are present and create favorable areas of mineralization. Oil and gas potential is low except for the possible exception of the northwest one-half of this unit.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land use includes grazing, mining claims, very small scale mineral extraction, and several older mining related structures at the Mission Cross Mine near Coon Creek Summit. The potential for increased land use is high for minerals.

Fire potential varies from high in the low elevations along the Bruneau River to low in the upper elevations above 7,800 feet. This is due to the nature of the fuels in the area and the difference in moisture.

The Bear Creek watershed area is critical for fire prevention and control work. It is not potentially hazardous because of the high elevation and vegetation types. The northwest portion of the area is steep and covered with extremely flammable vegetation. A fire in this area would burn very rapidly. The remainder of the area would be moderate for fire potential.

Insects and disease are not problems in this unit. Private lands in the northwest one-fourth of this unit presently restrict public access.

4. Need

The adjacent Jarbidge Wilderness is located approximately 2 air miles away at the closest point. The nearest population centers and approximate distances are: Elko, Nevada 70 road miles; Twin Falls, Idaho 90 road miles; and Boise, Idaho 200 road miles.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a nonwilderness area. Some support for wilderness designation occurred from nonlocal individuals and organizations. There was very little interst in making this area wilderness during previous public involvement sessions. The area was allocated to non-wilderness.

This portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from the effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area was not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and non-structural range and wildlife habitat improvements, as well as harvesting woodland products, are part of the scheduled management prescribed for the area. ORV use is expected to increase. The area has not been withdrawn from mineral entry. The USGS lists this area as having a high mineral potential. Some boundary adjustments have been made to exclude mineralized areas. However, the remainder of the area is still heavily mineralized. The unscheduled mining activity will have the greatest impact on the amount of wilderness available for future consideration. The unscheduled mining activity coupled with the other proposed management activities could eliminate a major portion of the roadless area for future wilderness consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **376 ROADLESS AREA**

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)							
	A	C	D	E	F	H	I	J	K
Current Situation			34539			34539	34539		
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									32447
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				34539					
All high except Lvstk									
All high except WL					34539				
All moderate	396	396							
Wilderness	34143	34143						34539	

TABLE B—IMPACTS ON WILDERNESS CHARACTER

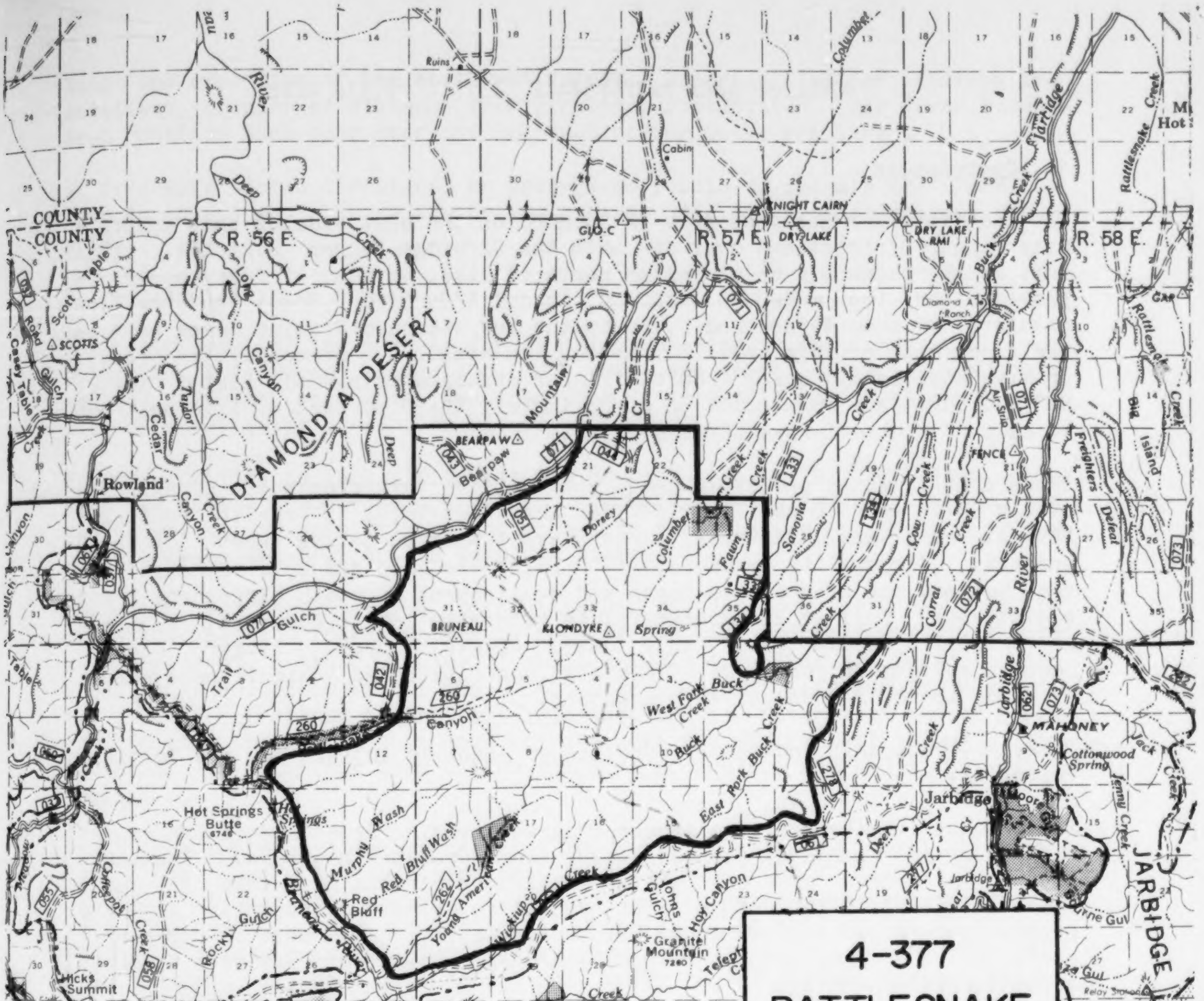
376 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	99% of the area will be managed as wilderness. Same as J	Same as A	Management will continue at present level. Integrity at higher elevations may be reduced.	Management will be at a level lower than present. Same as J	Management will emphasize resources except for wildlife. Same as D	Same as D	Same as D	Integrity and naturalness are excellent at the higher elevations. Lower elevations are reduced due to the number of improvements.	Same as D
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunity for solitude is low due to open terrain.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation same as solitude	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS

376 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	34,143	34,143	-	-	-	-	-	34,539	-
Dispersed Rec.	MRVDS	5.45	5.45	-	-	-	-	-	5.52	-
NONWILDERNESS	ACRES	396	396	34,539	34,539	34,539	34,539	34,539	-	34,539
Dispersed Recreation										
Non-Motorized	MRVDS	.001	.001	.984	.043	.056	.984	.984	-	.984
Motorized	MRVDS	.063	.063	3.48	4.43	5.46	3.48	3.48	-	3.48
Wildlife Nonstructural Habitat Improv	ACRES	5.02	5.02	1.45	1.45	5.02	1.45	1.45	5.02	1.45
WL/Fish Use	MWFUDS	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91
Livestock	MAUMS	8.25	8.25	8.38	8.24	8.38	8.38	8.38	8.24	8.38
Fuelwood	MCORDS	.001	.001	.085	.085	1.02	.085	.085	-	.085
Xmas Trees	MTREES	.001	.001	.009	.009	.015	.009	.009	-	.009
Sediment Yield	MTONS									
Soil Improvement	ACRES	.59	.59	.098	1.11	.098	.098	.59	.098	.098
Minerals	CASES	5.63	5.63	4.82	6.57	5.63	5.63	5.63	5.63	5.63


4-377
RATTLESNAKE
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
R. 56 E.
R. 57 E.
R. 58 E.
DIAMOND A DESERT
JARBIDGE
Rowland
Jarbidge
Bearpaw Mountain
Hot Springs Butte
Red Bluff
Granite Mountain
Twin Buttes
Hicks Summit
Tennessee Mountain
Pine Mountain
Rosebud Mountain
Cornwall Mountain
Jarbidge Peak
Matterhorn
Coon Creek Peak
Danger Point
Square Top
Mahoney
Diamond A Ranch
Cottonwood Spring
West Fork Buck Creek
East Fork Buck Creek
Murphy Wash
Red Bluff Wash
Young America Creek
Columbet Creek
Fawn Creek
Cow Creek
Corral Creek
Jarbidge River
Rattlesnake Creek
PARALLEL

ROADLESS AREA RATTLESNAKE, #377 - 22,312 ACRES

1. Description

The Rattlesnake Roadless Area is located on the east side of the Mountain City Ranger District and overlaps onto the Jarbidge Ranger District. This unit is approximately 65 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Diamond A/Jarbidge Road, by the low standard Bruneau River road, and by the low standard Wickiup Creek road on the east side of this unit. Numerous low standard, generally 4x4 roads, provide additional access from the higher standard main roads listed above. No public access is present on approximately 85-90 percent of this unit due to lack of right-of-ways through private land.

Topography is steep and semirugged. Elevations vary from a low of approximately 5,100 feet to nearly 7,300 feet above sea level at Granite Mountain. Several very small perennial streams exist with no native trout fisheries present. Air quality is excellent. Soils are deep and well developed in the bottoms and of moderate depth and development on south slopes and upper elevations. Soil erosion potential is generally low to moderate. Predominant wildlife species are: mule deer, cougar, coyote, badger, beaver, bobcat, and chukar partridge. This unit contributes an insignificant volume of water to the Bruneau River headwaters.

Rocks are Paleozoic sediments, Cretaceous granitic intrusives, and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. Aspen stands are small with mountain mahogany stands present near Granite Mountain. Drainages contain a narrow band of riparian vegetation consisting mainly of small meadow vegetation and other water sensitive plants. Numerous springs, seeps, and small meadows occur within this unit. This unit is representative of the Intermountain sagebrush/steppe western ponderosa forest ecosystem (3130-49/10).

The primary current uses are livestock grazing (5434 AUM's), dispersed recreation for deer and game birds, and mining claims. Fence structures and water troughs are present, especially near the Bruneau River. The unit's appearance is that of steep ridges and drainages rising out of the Bruneau River Canyon on the south to foothills surrounded by plains and plateaus on the north.

The area is scenic with numerous wildlife species. Mule deer, grouse, raptors, and many small birds and mammals are found here.

The chief attractions are the deep Bruneau Canyon and dispersed recreation hunting for deer and gamebirds, and the estimated annual use is 2,000 RVD's.

The integrity and appearance of the east side of the area is relatively pristine with only minor disturbance from mining, grazing, or wood cutting. On the west side of the area, the natural appearance and integrity of the unit is moderate except for the southwest side which is low due to extensive past wildfires, cheat grass vegetation, and low standard 4x4 roads.

With the exception of the southwest corner, opportunities for solitude are excellent, because of distance from populated communities. Air Force planes from Mountain Home pass over the southest corner quite regularly.

No Federally listed threatened or endangered plants or animals are known to live in this area. There are no known historical sites or scientific study areas.

3. Availability

The main use of the area is for livestock grazing. This area has good potential for forage production, and there are more range improvements needed. Forage production and condition is generally good with the exception of cheat grass present on old burns.

Mining activity is very limited at the present time. The USGS lists this area as having a moderate mineral and geothermal potential and low oil and gas potential. Mineral claims and prospects for tungsten are present on the ridge between the Bruneau and Jarbidge Rivers.

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy. Deer hunting is popular and will probably remain at the existing level. Other species of small animals and birds are found in the area. This unit lies within one of the more important deer hunting areas in the state. Portions of the very important Bruneau River deer winter range are located throughout this unit and are used for spring/fall range. The potential to increase deer winter range is moderate, but would be quite costly.

Land uses authorized include grazing and very small-scale mineral activity. There has been a little mining work in the heads of Buck Creek, but the potential is moderate. Also, there has been a spring developed in Sanovia Creek for hydroelectric and irrigation which is being used at the Diamond A Ranch. The area produces high quality water and is in good watershed condition. There may be a need to add more water to the Sanovia Springs hydroelectric and irrigation system.

According to historical record, fire potential is low in the northeast portion but moderate in the remainder. Some insect damage has occurred in the northeast portion from tussock moth in the subalpine fir.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Commercial timber stands and firewood areas are present.

Private lands in the northeast quadrant of the unit presently restrict public access.

4. Need

The adjacent Jarbidge Wilderness is located approximately 6 air miles away at the closest point. The nearest population centers and approximate road distances are: Elko, Nevada, 90 miles; Twin Falls, Idaho, 100 miles; and Boise, Idaho, 180 miles.

This portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada and southern Idaho. Wilderness designation is not needed to represent this type of ecosystem.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a nonwilderness area. Nonlocal comments also favored nonwilderness designation. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public on request. Ths was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This roadless area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvements, as well as harvesting woodland products, are part of the scheduled management prescribed for the area. ORV use is expected to increase. The area has not been withdrawn from mineral entry. The USGS considers this area as having a moderate potential for hardrock minerals and geothermal resources. Unscheduled mining developments, increased ORV use, and structural range and wildlife habitat improvements will reduce the amount of wilderness available for future considerations.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **377 ROADLESS AREA**

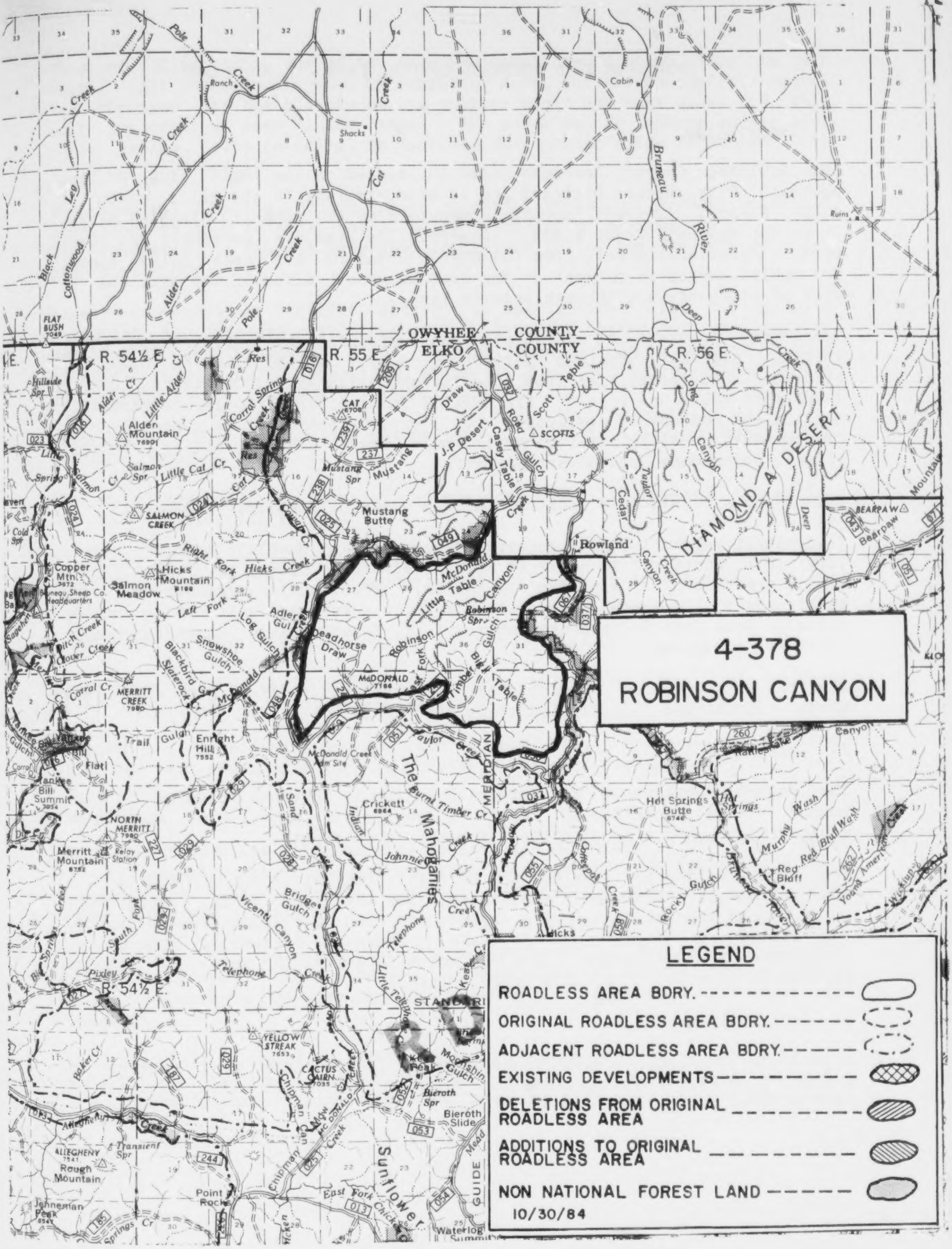
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		22312				22312	22312		22312
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H),									
S&W/WL/NMDisp/Min (H) MDisp/Wood Prod/Dev Rec (M)									
All low			22312	22312					
All high except Lvstk									
All high except WL					22312				
All moderate									
Wilderness	22312							22312	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 377 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will remain at present level. Integrity and naturalness may be reduced	Management will be of a level lower than present. Same as J	Same as D	Management emphasis higher on all resources except. Wild life. Integrity would be reduced.	Same as C	Same as C	Integrity and naturalness are excellent on eastern side of area. The integrity has been impacted by man's past activities on the west and south sides.	Same as C
SOLITUDE	Same as J	Solitude may be impacted by increased	Same as C	Same as C	Same as C	Same as C	Same as C	Solitude is good on all areas except the S.W. portion.	Same as C
PRIMITIVE RECREATION	Same as J	Same as solitude	Same as C	Same as C	Same as C	Same as C	Same as C	Same as solitude	Same as C
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Few opportunities exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 377 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	22,312	-	-	-	-	-	-	22,312	-
Dispersed Rec	MRVDS	5.65	-	-	-	-	-	-	5.65	-
NONWILDERNESS	ACRES	-	22,312	22,312	22,312	22,312	22,312	22,312	-	22,312
Dispersed Recreation										
Non-Motorized	MRVDS	-	2.42	.107	.107	.138	2.42	2.42	-	2.42
Motorized	MRVDS	-	1.47	3.78	3.78	5.52	1.47	1.47	-	1.47
Wildlife Nonstructural Habitat Improv	ACRES	5.38	3.51	3.51	3.51	5.38	3.51	3.51	5.38	3.51
WL/Fish Use	MWFUDS	1.34	1.33	1.33	1.33	1.34	1.33	1.33	1.34	1.33
Livestock	MAUMS	5.21	5.30	5.21	5.21	5.37	5.30	5.30	5.21	5.30
Fuelwood	MCORDS	-	.062	.062	.062	.087	.062	.062	-	.062
Xmas Trees	MTREES	-	.010	.010	.010	.024	.010	.010	-	.010
Sediment Yield	MTONS									
Soil Improvement	ACRES	.257	.049	.049	.049	.544	.049	.049	.257	.049
Minerals	CASES	3.04	3.04	2.32	2.32	3.93	3.04	3.04	3.04	3.04



OWYHEE COUNTY
ELKO COUNTY
R. 54½ E.
R. 55 E.
R. 56 E.
DIAMOND A DESERT
Alden Mountain
Salmon Creek
Copper Mtn.
Hicks Mountain
Salmon Meadow
Mustang Butte
J.P. Desert
Scotts
Rowland
Bearpaw
McDonald
Deadhorse Draw
Robinson Canyon
Little Table
Enright Hill
Merritt Creek
North Merritt
Merritt Mountain
Crickett
The Mahoganies
Meridian
Hot Springs Butte
Red Bluff
Yellow Streak
Cactus Cairn
Allegheny
Rough Mountain
Point Rocks
Bieroth Slide
Waterlog Summit
Sunflower
Flat Bush
Bruneau River
Guide

4-378
ROBINSON CANYON

LEGEND

ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND

10/30/84

ROADLESS AREA ROBINSON CANYON, #378 - 7,960 ACRES

1. Description

The Robinson Canyon Roadless Area is located on the east side of the Mountain City Ranger District and is approximately 76 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Meadow Creek and McDonald Creek roads. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main roads listed above. No public access is present on the east and north sides of the unit due to lack of right-of-ways through private land.

Topography consists of large plateaus surrounded by very steep, often vertical cliffs. Drainage patterns are well defined with no perennial streams. Elevations vary from a low of approximately 5,000 feet to nearly 7,200 feet above sea level. Air quality is excellent. Soils are generally shallow and moderately developed. Soil erosion potential is generally low. Predominant wildlife species are: mule deer, coyote, badger, beaver, bobcat, sagegrouse, and chukar partridge.

Rock types are Paleozoic sediments with a cover of Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. Mountain mahogany stands vary from scattered to heavy at some locations. Only a few small aspen stands are present. Riparian vegetation, except wetland grasses at a few small seeps, is absent. Overall, this is a very dry unit due to shallow soils. This unit is respresentative of the Intermountain sagebrush/steppe (3130-49) ecosystem.

The chief attraction is dispersed recreation hunting for deer and game birds. Annual use is estimated to be 600 RVD's.

2. Capability

The natural appearance and integrity is low to moderate because of the number of low standard roads running throughout the area, past vegetative manipulations, and a great number of range improvements.

The opportunities for solitude and primitive recreation are low due to the ease of access, the area's small size, and the nature of the topography. There are no special challenging experiences such as rafting, rock climbing, ice fields, or jagged mountain peaks. There are no special features of threatened or endangered plant and animal species or areas of special historical or scientific study opportunities.

3. Availability

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy with a moderate to high potential for increased activity of this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer, and for spring/fall range. The "breaks" off the plateau on the extreme south and east sides of this unit are critical deer winter range. The potential to improve summer deer range is low. The potential to increase deer winter range is present but would be quite costly.

Watershed value is low, there are no perennial streams. Present watershed condition is good to excellent with the exception of several small sites. The potential to improve watershed conditions is low because of existing good conditions.

Livestock operations consist entirely of cattle with a low to moderate potential to increase cattle numbers. Livestock operations are managed under an approved management plan. Forage production and condition is good to excellent with a few exceptions, primarily due to recent wildfires and a few drainages with very heavy sagebrush pockets.

Commercial timber stands are not present. There is a low potential for mountain mahogany firewood.

The unit has moderate potential for the occurrence of economic minerals. Oil and gas potential is low.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Land uses authorized include grazing and mining claims.

Fire potential varies from high in the low elevations along the Bruneau River to moderate on the plateaus due to the nature of the vegetation.

Insects and disease are not problems in this unit. Private lands on the north and east sides of this unit presently restrict public access.

4. Need

The adjacent Jarbidge Wilderness is located approximately 12 air miles away at the closest point. The nearest population centers and approximate road distances are: Elko, Nevada 76 miles; Twin Falls, Idaho 95 miles; and Boise, Idaho 170 miles.

This portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada and southern Idaho. Wilderness designation is not needed to represent this type of ecosystem.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a nonwilderness area. Nonlocal sentiment also favored nonwilderness designation. The area was allocated to nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvements, as well as harvesting Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. The area has moderate potential for the occurrence of economic hardrock minerals. Oil and gas potential is low. Structural range and wildlife habitat improvement, increased ORV use and unscheduled mining developments will decrease the amount of wilderness available for future consideration. The anticipated projects joined with the existing unimproved dirt roads found in the area may render the entire area unsuitable for wilderness consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

378 ROADLESS AREA

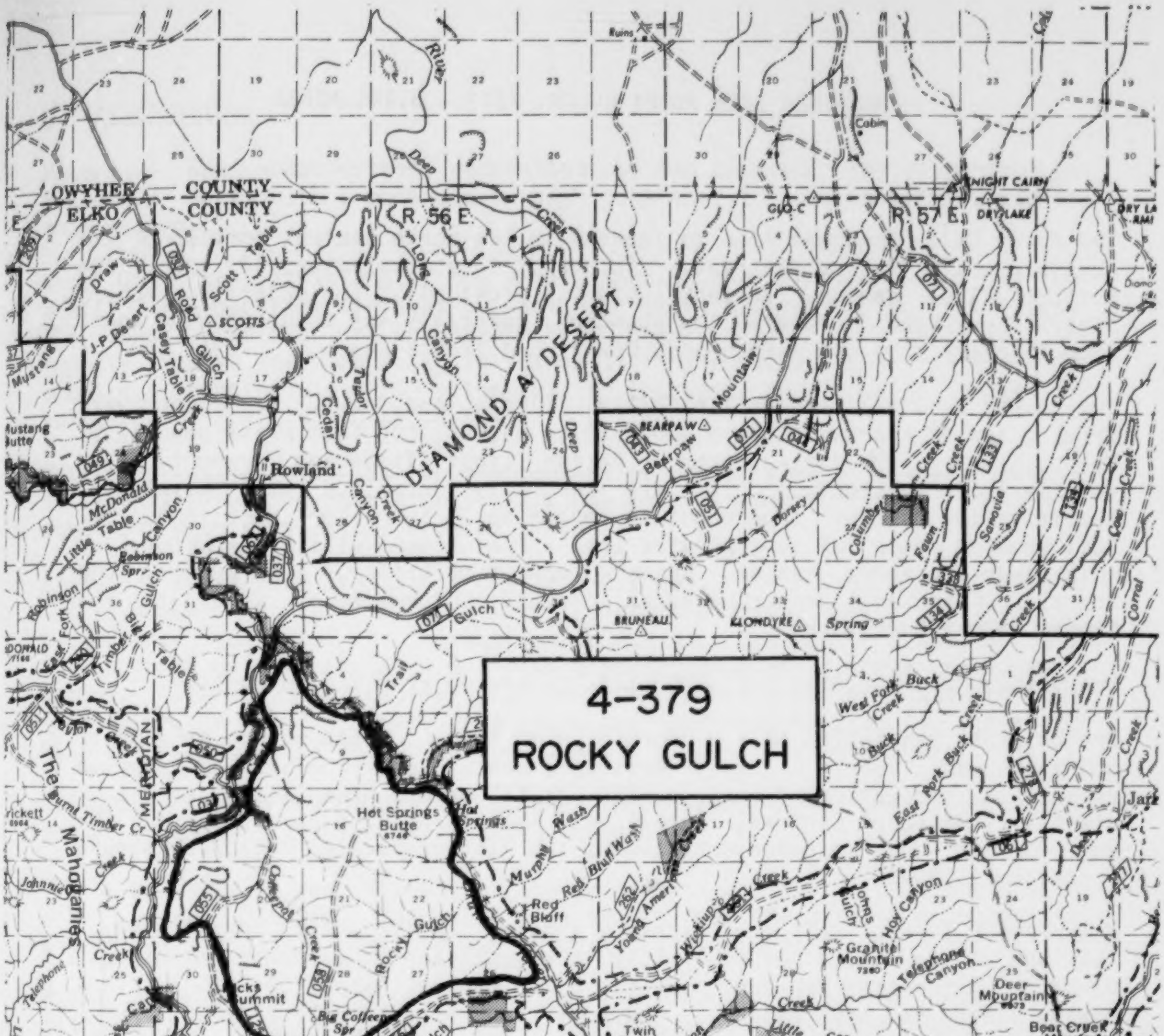
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		7960	7960			7960	7960		7960
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				7960					
All high except Lvstk									
All high except WL					7960				
All moderate									
Wilderness	7960							7960	

TABLE B—IMPACTS ON WILDERNESS CHARACTER **378 ROADLESS AREA**

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will remain at present level. Integrity may be reduced due to increased mining.	Same as C	Management will be at level lower than present. Same as J	Management will emphasize all resources except wildlife. Integrity may be reduced.	Same as C	Same as C	Integrity and naturalness are considered low to moderate.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Sam eas J	Same as J	Same as J	Solitude is considered low due to ease of access and small size of area.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation same as solitude.	Same as
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 378 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	7,960	-	-	-	-	-	-	7,960	-
Dispersed Rec	MRVDS	1.00	-	-	-	-	-	-	1.00	-
NONWILDERNESS	ACRES	-	7,960	7,960	7,960	7,960	7,960	7,960	-	7,960
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	0	.902	.902	.902	1.00	.902	.902	-	.902
Wildlife Nonstructural Habitat Improv	ACRES	.897	.005	.005	.005	.897	.005	.005	.897	.005
WL/Fish Use	MWFUDS	.425	.426	.426	.426	.426	.426	.426	.425	.426
Livestock	MAUMS	1.91	1.94	1.94	1.91	1.97	1.94	1.94	1.91	1.94
Fuelwood	MCORDS	-	.019	.019	.019	.020	.019	.019	-	.019
Xmas Trees	MTREES	-	.002	.002	.002	.002	.002	.002	-	.002
Sediment Yield	MTONS									
Soil Improvement	ACRES	.151	.025	.025	.025	.279	.025	.025	.151	.025
Mineral	CASES	1.37	1.37	1.37	1.21	1.55	1.37	1.37	1.37	1.37


4-379
ROCKY GULCH
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
OWYHEE COUNTY
ELKO COUNTY
R. 56 E.
R. 57 E.
DIAMOND A DESERT
Rowland
Hot Springs Butte
Rocky Gulch
Red Bluff
Granite Mountain
Twin Buttes
Deer Mountain
Bear Creek Meadows
Bear Creek Summit
Danger Point
Coon Creek Peak
Tennessee Mountain
Bieroth Slide
Waterloo Summit
Sunflower Reservoir
Gold Creek Adm Site
Rosebud Mountain
Cornwall Mountain
Cornwall Pass
Poorman Peak
The Mahoganies
Mustang Butte
MERIDIAN
GUIDE
Sunflower Flat
BEARPAW
BRUNEAU
KLONDYKE
SCOTTS
Spring
Coon Creek
Little Coon Creek
Miller Creek
Telephone Canyon
Hay Canyon
Tennessee Gulch
Road Gulch
Murphy Wash
Red Bluff Wash
West Fork Buck Creek
East Fork Buck Creek
Columbet Creek
Dorsey Creek
Bearpaw Mountain
Deep Creek
Cedar Creek
Canyon Creek
Casey Table
Scott Table
J.P. Desert Draw
McDonald
Little Table Canyon
Robinson
Timber Gulch
Big Table
Burnt Timber Cr.
Johnnies Creek
Big Coffeepot Spr
Cottonwood Creek
Moonshine Gulch
Bieroth Spr
Martin Creek
Rosebud Cr.
Gold Creek
Sweet Creek
Sawmill Creek
Pine Creek
Corral Creek
Fawn Creek

ROADLESS AREA ROCKY GULCH, #379 - 8,440 ACRES

1. Description

The Rocky Gulch Roadless Area is located in the north central portion of the Mountain City Ranger District. This unit is approximately 60 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Meadow Creek road. Several low standard, generally 4x4 roads provide additional access from the main Meadow Creek road listed above.

Topography is steep with rolling hills, ridges, and draws. Elevations vary from a low of approximately 5,000 feet to about 7,000 feet above sea level. There are no perennial streams or native trout fisheries present. Air quality is excellent. Soils are generally deep and well developed. Precipitation varies from about 14 inches to 20 inches or more annually. Soil erosion potential is generally low. Predominant wildlife species are: mule deer, coyote, badger, beaver, chukar partridge, sage grouse, and bobcat. This unit contributes an insignificant volume of water in the Bruneau River headwaters.

Rock types are Paleozoic sediments and Cretaceous granitic intrusives.

Predominant vegetation is a sagebrush/grass type. Aspen stands are small and scattered. Nearly all major drainages contain a narrow band of riparian vegetation consisting of small meadow vegetation and other water sensitive plants. Numerous springs, seeps, and small meadows occur throughout the unit. This unit is representative of the Intermountain sagebrush/steppe ecosystem (3130-49).

The primary current uses are livestock grazing (cattle - 2,35 AUM's; sheep - 351 AUM's) on parts of two cattle allotments and one sheep allotment; dispersed recreation for deer and game birds (an estimated 700 RVD's); and mining claims and exploration. Numerous fence structures and water troughs exist on the cattle portions of this unit. The unit's appearance is that of steep ridges and drainages rising out of the Bruneau River Canyon to the north and rolling hills and ridge tops on the south.

The chief attraction is the deep Bruneau Canyon to the north, and dispersed recreation hunting for deer and game birds.

2. Capability

The natural appearance and integrity of this unit is low because of the easy access and low standard roads running throughout the area and the visible physical range improvements throughout.

The opportunities for solitude and primitive recreation are moderate and low, respectively, ecause of the small size and open topography of the area.

There are neither special challenging experiences, threatened or endangered plant and animal species, nor areas of special historical or scientific study opportunities.

3. Availability

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy with a moderate to high potential for increased activity of this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer, and for spring/fall range. The lower portions are important deer winter range. The potential to improve summer deer range is low since it is generally already in good to excellent condition. The potential to increase deer winter range is possible but would be quite costly.

Watershed value is low due to the lack of perennial steams. The potential to improve watershed conditions is low due to its present good to excellent condition with very little erosion present.

Livestock operations consist of cattle and sheep. The potential to increase cattle numbers is low since permitted livestock are near capacity. There is a moderate potential to increase sheep AUM's. The sheep allotment and Meadow Creek cattle allotment are both managed under an approved management system. The Bruneau cattle allotment management plan is scheduled for completion in 1986. Forage production and condition is good to excellent with a few exceptions due to scattered small stands of cheat grass.

Commercial timber stands are not present and firewood areas are very limited due to only small and scattered aspen stands.

Mining activity is very limited at the present time with few conflicts with other uses. The USGS lists this area as having a low mineral and moderate geothermal potential. Oil and gas potential is unknown.

Numerous native American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land uses include grazing and a few mining claims. The potential for increased land use is moderate for geothermal, low for mining, and low for grazing since the grazing resource has already been allocated under the permit system.

Fire potential is high, especially in the lower elevation near the Bruneau River which has large stands of cheat grass present from past burns.

Insects and disease are not problems in this unit. Private lands on the north and northeast portions of this unit presently restrict public access.

4. Need

The Jarbidge Wilderness is located approximately 6 air miles away at the closest point. The nearest population centers and approximate road distances are: Elko, Nevada, 82 miles; Twin Falls, Idaho, 90 miles; and Boise, Idaho, 172 miles.

The portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada and southern Idaho. Wilderness designation is not needed to represent this type of ecosystem.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a nonwilderness area. Nonlocal sentiment also favored nonwilderness designation. The area was allocated as nonwilderness.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural range and wildlife habitat improvements, as well as nonstructural range improvements and harvesting of Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. The USGS lists this area as having a low hardrock mineral and moderate geothermal potential. Structural range and wildlife habitat improvements in combination with the increased ORV use will impact the amount of wilderness available for future consideration. Due to the existing roaded nature of the area, none of it may be available for wilderness consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

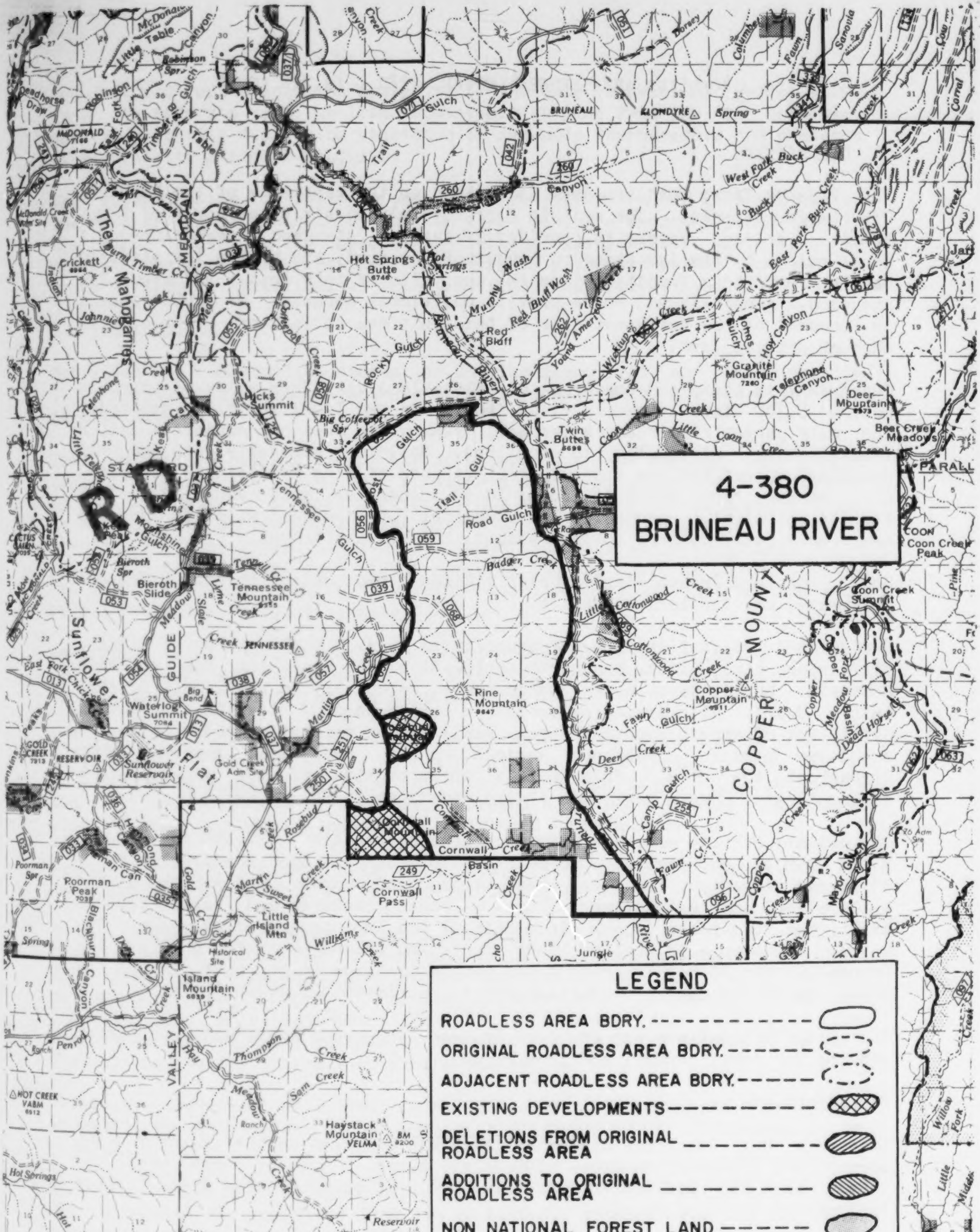
379 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)		FOREST PLAN ALTERNATIVES (ACRES)							
	A	C	D	E	F	H	I	J	K
Current Situation		8440	8440			8440	8440		8440
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				8440					
All high except Lvstk									
All high except WL					8440				
All moderate									
Wilderness	8440							8440	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will continue at the present level. Same as J.	Same as C	Management will be at a level lower than present. Same as J	Management emphasizes all resources except wildlife. Same as J.	Same as C	Same as C	Integrity and naturalness are low due to the number of unimproved dirt roads.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low, same reason as integrity.	Same as J
PRIMITIVE RECREATION	Same as J	Primitive recreation may be reduced.	Same as C	Same as C	Same as C	Same as C	Same as C	Primitive recreation has a moderate opportunity.	Same as C
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as j	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 379 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	8,440	-	-	-	-	-	-	8,440	-
Dispersed Rec.	MRVDS	1.07	-	-	-	-	-	-	1.07	-
NONWILDERNESS	ACRES	-	8,440	8,440	8,440	8,440	8,440	8,440	-	8,440
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	-	.985	.985	.985	1.07	.985	.985	-	.985
Wildlife Nonstructural Habitat Improv	ACRES	.940	-	-	-	.940	-	-	.940	-
WL/Fish Use	MWFUDS	.451	.452	.452	.452	.452	.452	.452	.451	.452
Livestock	MAUMS	2.02	2.06	2.06	2.02	2.09	2.06	2.06	2.02	2.06
Fuelwood	MCORDS	-	.020	.020	.020	.021	.020	.020	-	.020
Xmas Trees	MTREES	-	.002	.002	.002	.002	.002	.002	-	.002
Sediment Yield	MTONS									
Soil Improvement	ACRES	.16	.03	.03	.03	.296	.03	.03	.16	.03
Minerals	CASES	-	1.47	1.47	1.29	1.66	1.47	1.47	1.47	1.47


Hot Springs Butte
Red Bluff
Twin Buttes
Granite Mountain
Deer Mountain
Bear Creek Meadows
Coon Creek Peak
Coon Creek Summit
Copper Mountain
COPPER MOUNTAIN
Pine Mountain
Cornwall Mountain
Cornwall Basin
Cornwall Pass
Little Island Mtn
Island Mountain
Gold Creek Historical Site
Gold Creek Adm Site
Sunflower Reservoir
Sunflower Flat
Waterloo Summit
Big Bend
Tennessee Mountain
TENNESSEE
Bieroth Slide
Bieroth Spr
Hicks Summit
Big Coffeepot Spr
Crickett
The Mahoganies
GUIDE MERIDIAN
STANDARD PARALLEL
Rattlesnake Canyon
Murphy Wash
Red Bluff Wash
Young America Creek
Wickiup Creek
Hot Springs Creek
Tennessee Gulch
Road Gulch
Badger Creek
Little Cottonwood Creek
Cottonwood Creek
Fawn Gulch
Deer Creek
Camp Gulch
Sweet Creek
Williams Creek
Thompson Creek
Sam Creek
Haystack Mountain
VELMA
Rosebud Creek
Martin Creek
Moonshine Gulch
Kelly Creek
Little Table Canyon
BRUNEAU
KLONDYKE
West Fork Buck Creek
East Fork Buck Creek
Hay Canyon
Telephone Canyon
Coon Creek
Little Coon Creek
Johns Gulch
Poorman Peak
Poorman Spr
Blackburn Canyon
Penrod
Hot Springs
HOT CREEK VABM
GOLD CREEK RESERVOIR
Jungle
Dolly Creek
Reservoir
Bruneau River
Dorsey Creek
Columbia Creek

4-380
BRUNEAU RIVER

LEGEND

ROADLESS AREA BDRY. ------------- ⬭
ORIGINAL ROADLESS AREA BDRY. ------- ⬭
ADJACENT ROADLESS AREA BDRY. ------ ⬭
EXISTING DEVELOPMENTS ---------- ▩
DELETIONS FROM ORIGINAL ROADLESS AREA --------- ▨
ADDITIONS TO ORIGINAL ROADLESS AREA --------- ▧
NON NATIONAL FOREST LAND ------ ▒

10/30/84

ROADLESS AREA BRUNEAU RIVER, #380 - 13,228 ACRES

1. Description

The Bruneau River Roadless Area is located on the east side of the Mountain City Ranger District. The unit is approximately 56 air miles north of Elko, Nevada. Primary access is provided by the low standard Rosebud/Cornwall Basin road, by the low standard Bruneau River road, and by the low standard Martin Creek/Hicks Summit road on the west side of this unit. Numerous low standard, generally 4x4 roads provide additional access. No public access is present on the northeast side of this unit due to lack of right-of-ways through private land.

Topography is steep and semi-rugged. Elevations vary from a low of approximately 5,300 feet to nearly 8,700 feet above sea level at Pine Mountain. The only perennial stream is Cornwall Creek which does not support a native trout fishery. Air quality is excellent. Soils are generally deep and well developed except for the very upper elevations of Pine Mountain. Precipitation varies from about 14 inches to 30 inches or more annually. Soil erosion potential is generally low-moderate. Predominant wildlife species are: mule deer, cougar, coyote, badger, beaver, and bobcat.

Rock types are Precambrian/Cambrian sediments and metamorphics, Paleozoic sediments, and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. Small stands of alpine fir/limber pine exist on north/northwest slopes near the top of Pine Mountain. Large, dense aspen stands occur, especially in the middle of this unit. Nearly all drainages contain a narrow band of riparian vegetation consisting of aspen, mountain birch, small meadow vegetation and other water sensitive plants. Numerous springs, seeps, and small meadows occur throughout the area. This unit is representative of the Intermountain sagebrush/great basin sagebrush steppe ecosystem (3130-32, 49).

The primary current uses are livestock grazing (cattle - 737 AUM's, sheep - 3,249 AUM's) on parts of two cattle allotments and one sheep allotment; dispersed recreation for deer, game birds, and cougar; and mining claims exploration and extraction of ore. Fence structures and water troughs exist, but to a minor degree since much of the area is grazed by sheep. The unit's appearance is that of steep ridges and drainages rising out of the Bruneau Canyon to rolling ridges and gentle plateaus on the west side of the unit. Estimated annual recreation use is approximately 1,200 RVD's.

The chief attractions are the deep Bruneau Canyon and dispersed recreation hunting for deer, cougar, and game birds.

2. Capability

Extensive but localized mining activity has occurred on the Rosebud (400 acres) and Cornwall Mountain (700 acres) areas. Both of these areas no longer meet the roadless area criteria and will be eliminated from further analysis.

The natural appearance and integrity of the upper elevations (above 7,800 feet) is moderate with the lower elevations varying from low to moderate. This is primarily due to the existence of man-made improvements and presence of several low standard roadways.

The opportunities for solitude and primitive recreation are moderate due to the open nature of the country and the short distance from the perimeter to the core. There are no special challenging experiences. There are no special features of threatened or endangered plant and animal species or areas of special historical or scientific study opportunitites.

3. Availability

Motorized and nonmotorized recreation use for deer, bird, and cougar hunting is presently heavy with a moderate to high potential for increased activity of this nature.

This unit lies within one of the more important deer hunting and cougar hunting areas in the state. All portions are used by summering deer and for spring/fall range. A small portion of the east side near the Bruneau River is used as deer winter range. The potential to improve summer deer range is low since it is already in generally good to excellent condition. The potential to increase deer winter range is low and would be quite costly. The potential is moderate to improve species diversity by reintroducing game birds, primarily sharptail grouse.

Watershed value is low due to the small volume of water produced on the area. Present watershed condition is good to excellent. The potential to improve watershed conditions is generally low.

Livestock operations consist of cattle and sheep. The potential to increase cattle numbers is low with a moderate potential to increase sheep AUM's. The cattle management plans are scheduled to be completed in 1985 or 1986, and the sheep allotment is already managed under an approved management plan. Forage production and condition is good to excellent.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access and higher demand occurred.

Active exploration and mining areas are presently small in total acreage. Overall mining potential is moderate to high on the southwest portions. This area has a moderate to high mineral potential, especially on the southwest portion. Copper, tungsten, uranium, and molybdenum claims are present. One gold and one silver mine with recent ore extraction are present in the southwest portion of the unit. Oil and gas potential is low. The unit is heavily staked with mining claims.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Land uses authorized include grazing, mining claims, and mineral extraction. The potential for increased land use is high for minerals and low for other activities.

Fire potential varies from high in the low elevations along the Bruneau River to low in the upper elevations above 7,800 feet.

Insects and disease are not problems in this unit. Private lands on the northeast side of this unit presently restrict public access.

4. Need

The adjacent Jarbidge Wilderness is located approximately 5 air miles away at the closest point. The nearest population centers and approximate road distances are: Elko, Nevada, 75 miles; Twin Falls, Idaho, 110 miles; and Boise, Idaho, 170 miles.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a nonwilderness area. Nonlocal sentiment also favored nonwilderness designation, and the area was allocated to nonwilderness.

This portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada and southern Idaho. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural range and wildlife habitat improvements, nonstructural range improvements, and harvesting woodland products are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. Active exploration and mining projects occur within the area. The southwest portion of the area has a high potential for hardrock minerals. Due to the existing low standard roads, increasing ORV use, proposed range and wildlife improvements, and unscheduled mining developments, much of the area may not be available for wilderness consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 380 ROADLESS AREA

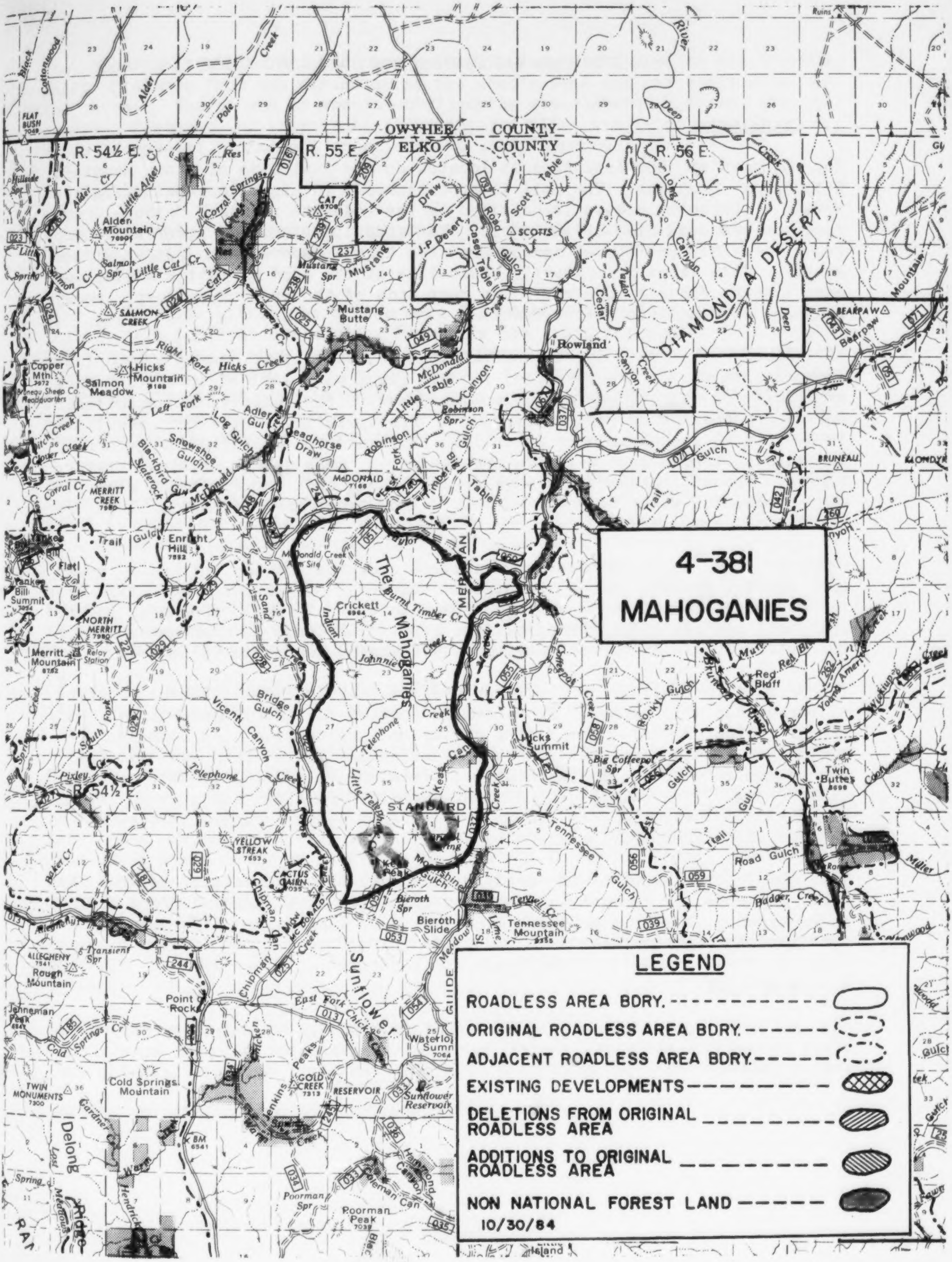
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	33,548	33,548	33,548			33,548	33,548		33,548
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Mins (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				33,548					
All high except Lvstk									
All high except WL					33,548				
All moderate									
Wilderness								33,548	

TABLE B—IMPACTS ON WILDERNESS CHARACTER **380 ROADLESS AREA**

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will remain at the present level. Integrity may be reduced at higher elevation.	Same as A	Same as A	Management will be at a level lower than present. Same as J	Management will emphasize all resources except wildlife. Same as A	Same as A	Same as A	Integrity and naturalness opportunity at the higher elevations is moderate. In the lower elevations they are low.	Same as A
SOLITUDE	Solitude may be reduced.	Same as A	Same as A	Same as J	Same as A	Same as A	Same as A	Opportunity for solitude is moderate.	Same as A
PRIMITIVE RECREATION	Same as solitude	Same as A	Same as A	Same as J	Same as A	Same as A	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 380 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	33,548	-
Dispersed Rec	MRVDS	-	-	-	-	-	-	-	1.67	-
NONWILDERNESS	ACRES	33,548	33,548	33,548	33,548	33,548	33,548	33,548	-	33,548
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	1.50	1.50	1.50	1.50	1.67	1.50	1.50	-	1.50
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	MWFUDS	.709	.709	.709	.709	.709	.709	.709	.709	.709
Livestock	MAUMS	3.23	3.23	3.23	3.18	3.27	3.23	3.23	3.23	3.23
Fuelwood	MCORDS	.031	.031	.031	.031	.035	.031	.031	-	.031
Xmas Trees	MTREES	.003	.003	.033	.033	.003	.003	.003	-	.003
Sediment Yield	MTONS									
Soil Improvement	ACRES	.040	.040	.040	.040	.464	.040	.040	.252	.040
Minerals	CASES	2.28	2.28	2.28	2.01	2.57	2.28	2.28	2.28	2.28


4-381
MAHOGANIES
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
OWYHEE COUNTY
ELKO COUNTY
R. 54½ E.
R. 55 E.
R. 56 E.
The Mahoganies
DIAMOND A DESERT
Alder Mountain
Mustang Butte
Hicks Mountain
Salmon Meadow
Copper Mth
Rowland
McDONALD
Cricket
Burnt Timber Cr
Merritt Mountain
NORTH MERRITT
MERRITT CREEK
Enright Hill
Yankee Bill Summit
Hicks Summit
STANDARD
YELLOW STREAK
CACTUS CAIRN
Bieroth Spr
Bieroth Slide
Tennessee Mountain
ALLEGHENY
Rough Mountain
Point of Rock
Jenneman Peak
Cold Springs Mountain
TWIN MONUMENTS
GOLD CREEK
RESERVOIR
Sunflower Reservoir
Poorman Peak
Twin Buttes
Red Bluff
BRUNEAU
BEARPAW
Delong
Sunflower
Waterloo Summit

ROADLESS AREA MAHOGANIES, #381 - 10,920 ACRES

1. Description

The Mahoganies Roadless Area is located on the east side of the Mountain City Ranger District. The unit is approximately 70 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Meadow Creek road on the east side of the area. Numerous low standard, generally 4x4 roads provide additional access from the high standard main roads listed above. This area is primarily basin-like at the head of Little Telephone and Indian Johnnie Creeks. The east side of the area has deep, rocky canyons draining into Meadow Creek.

Elevations vary from a low of approximately 5,400 feet to nearly 6,800 feet above sea level. A few perennial streams exist with limited trout fisheries available in Sand Creek and Telephone Creek. Air quality is excellent. Soils are shallow to moderately deep. Precipitation varies from about 14 inches to 20 inches or more annually. Soil erosion potential is generally moderate. Predominant wildlife species are: mule deer, coyote, badger, beaver, bobcat, chukar, and sage grouse. This unit contributes a significant volume of water to Meadow Creek. Rock types are primarily Tertiary rhyolites.

Mahogany and aspen patches are scattered over most of the unit with aspen and willow growing along the stream courses. Sagebrush/grass type is interspersed between aspen and mahogany patches. Several springs, seeps, and small meadows occur throughout the area. The area is representative of the Intermountain sagebrush/wheat grass-bluegrass ecosystem (3130-44).

The primary current use is livestock grazing (cattle - 2,618 AUM's) on parts of two cattle allotments. Dispersed recreation for deer, game birds, and cougar (1100 RVD's), and mining claims and exploration. A considerable number of fences and water developments are within this unit. These improvements enabled implementation of intensive grazing systems on the allotments. The unit's appearance is that of rolling hills with steep canyons on the east side of the unit. The area appears rugged with mahogany patches covering approximately half of the area.

The chief attraction of the area is the unusual visual effect created by vast expanses of mahogany and rock interspersed with sagebrush/grass and aspen types. The area provides excellent deer habitat and offers excellent deer hunting opportunities.

2. Capability

The natural appearance and integrity of the unit is low due to unimproved roads throughout the area, existing range improvements, and past vegetative manipulation.

The opportunities for solitude and primitive recreation are low due to the short distance from the perimeter to the area's core and the small size of the area. There are no special challenging experiences. There are no special features of threatened or endangered plant and animal species or areas of special historical or scientific study opportunities.

3. Availability

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy with a moderate to high potential for increased activity of this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer, and for spring/fall range. The Taylor Canyon area and lower Meadow Creek are considered deer winter range. The potential to improve summer deer range is low since it is generally already in good to excellent condition. The potential to increase deer winter range is moderate, but would be quite costly. The potential to improve wildlife species diversity is low.

Watershed value is high since ths unit contributes significantly to Meadow Creek. Present watershed condition is good to excellent. The potential to improve watershed conditions is generally low with the exception of small drop structures to stop headcutting in a few areas.

Livestock operations consist of summer cattle grazing. The potential to increase cattle numbers is low as the area seems to be near capacity. All livestock operations are managed under approved management plans. Forage production and condition is good to excellent.

Commercial timber production is unfeasible with the exception of some small select mahogany cuts such as those presently occurring.

Active exploration and mining areas are presently small in total acreage. Overall mining potential is moderate. Two prospects, one lead and one uranium, are reported by other sources to be in the area. Late Tertiary volcanic rocks without prominent structures cover this area. Uranium might have some future potential due to the presence of porous rhyolitic tuffs. Some small scale dredging activity has occurred in Meadow Creek immediately adjacent to the unit. USGS has identified this area as having low prospective potential for geothermal resources.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land uses include grazing and mining.

Fire potential is high throughout the area because of the flashy fuels.

Insects and disease are not problems in this unit.

4. Need

The adjacent Jarbidge Wilderness is located approximately 12 air miles away at the closest point. The nearest population centers and approximate road distances are: Elko, Nevada, 73 miles; Twin Falls, Idaho, 95 miles; and Boise, Idaho, 165 miles.

During the RARE II process, both local and nonlocal opinion strongly favored nonwilderness designation for this area. The area was allocated to nonwilderness.

This portion of the sagebrush/bluegrass ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural range and wildlife habitat improvements, nonstructural range improvements, and the havevesting of Christmas trees are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. The area has potential for lead and uranium. Oil, gas, and geothermal is considered to be low. The structural range and wildlife habitat improvements, the increased ORV use, and the potential for unscheduled mining developments may impact the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE **381 ROADLESS AREA**

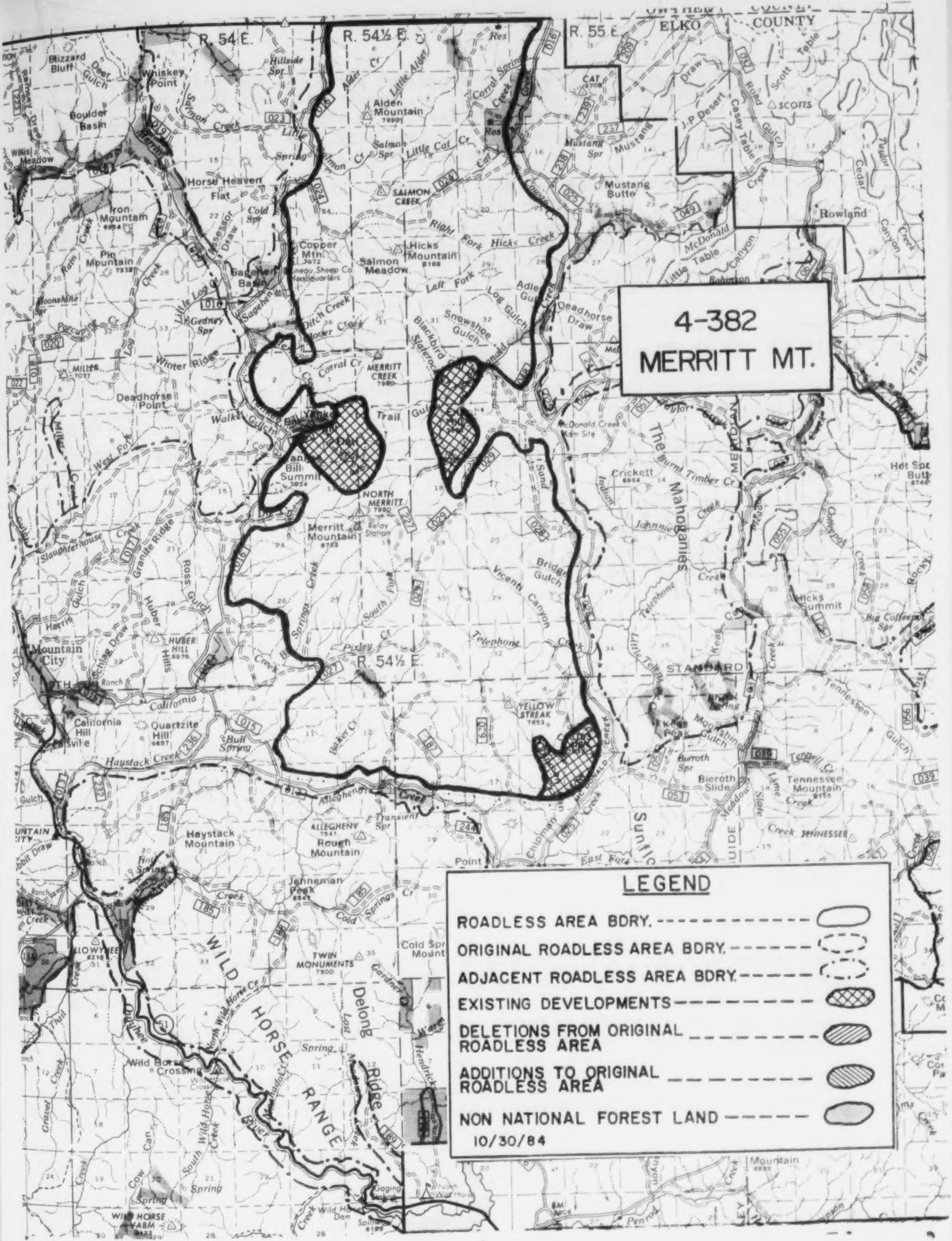
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		10920	10920			10920	10920		10920
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H),									
S&W/WL/NMDisp/Min(H) MDisp/Wood Prod/Dev Rec (M)									
All low				10920					
All high except Lvstk									
All high except WL					10920				
All moderate									
Wilderness	10920							10920	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 381 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Management will be maintained at current level. Same as J	Same as C	Management will be at a level lower than present. Same as J	Mangement will emphasize all but the wildlife outputs. Same as J	Same as C	Same as C	Integrity and naturalness are low due to unimproved dirt roads in the area as well as range improvement projects.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low due to small size of area.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 381 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	10,920	-	-	-	-	-	-	10,920	-
Dispersed Rec	MRVDS	1.39	-	-	-	-	-	-	1.39	-
NONWILDERNESS	ACRES	-	10,920	10,920	10,920	10,920	10,920	10,920	-	10,920
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	-	1.35	1.35	1.35	1.35	1.35	1.35	-	1.35
Wildlife Nonstructural Habitat Improv	ACRES	1.23	-	-	-	1.23	-	-	1.23	-
WL/Fish Use	MWFUDS	.59	.59	.59	.59	.59	.59	.59	.59	.59
Livestock	MAUMS	2.65	2.69	2.69	2.65	2.73	2.69	2.69	2.65	2.69
Fuelwood	MCORDS	-	-	-	-	.02	-	-	-	-
Xmas Trees	MTREES	-	.03	.03	.03	.01	.03	.03	-	.03
Sediment Yield	MTONS									
Soil Improvement	ACRES	.21	.03	.03	.03	.34	.03	.03	.21	.03
Minerals	CASES	1.90	1.90	1.90	1.68	1.15	1.90	1.90	1.90	1.90


4-382
MERRITT MT.
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
R. 54 E.
R. 54½ E.
R. 55 E.
ELKO COUNTY
Blizzard Bluff
Whiskey Point
Boulder Basin
Alden Mountain
Salmon Creek
Horse Heaven Flat
Iron Mountain
Pin Mountain
Copper Mtn
Hicks Mountain
Salmon Meadow
Sagehen Basin
Mustang Butte
Rowland
Deadhorse Point
Merritt Mountain
North Merritt
Merritt Creek
Yankee Bill Summit
Crickett
The Mahoganies
Hicks Summit
Mountain City
California Hill
Quartzite Hill
Haystack Mountain
Allegheny
Rough Mountain
Jenneman Peak
Twin Monuments
Yellow Streak
Standard
Tennessee Mountain
Bieroth Slide
Wild Horse Range
Delong Ridge
Wild Horse Crossing
Wild Horse Dam

ROADLESS AREA MERRITT MOUNTAIN, #382 - 37,080 ACRES

1. Description

The Merritt Mountain Roadless Area is located on the north central part of the Mountain City Ranger District. The unit is approximately 65 air miles north of Elko, Nevada. Access is by low standard roads, several of which are encumbered by private land. No right-of-way easements occur across any of the private land. Low standard "jeep roads" make much of this area accessible by 4x4 vehicles.

Numerous perennial streams exist with most containing good trout fisheries. Air quality is excellent. Soils are generally deep and well developed even at higher elevations. A low to moderate erosion potential exists with only small amounts of erosion present. Topography is steep and rugged with elevations that vary from 6,000 feet to nearly 8,800 feet above sea level.

Rock types include Paleozoic sediments, Cretaceous intrusives, and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type with extensive stands of subalpine fir found on the north slopes of Merritt Mountain. There are also large continuous stands of aspen, especially along drainages and bottoms. Nearly all major drainages contain a good riparian area and numerous springs, small meadows, and seeps occur throughout the unit. This unit lies within the Intermountain sagebrush/wheatgrass-bluegrass, sagebrush steppe ecosystem (3130-44, 49).

The primary current uses are livestock grazing (cattle - 9,782 AUM's) with portions of six cattle allotments; mineral exploration and minor ore removal; and dispersed recreation, primarily deer and game bird hunting and some fishing. The unit receives moderate recreation use estimated annually at ,200 RVD's. Numerous fences and livestock water troughs as well as numerous pit tanks are present. There is a Forest Service radio repeater and house on Merritt Mountain. The unit's appearance is that of a large mountainous island mass surrounded by desert plateaus and rolling foothills.

The chief attractions are the scenic mountainous terrain and deer and bird hunting.

2. Capability

Four areas within this unit have been extensively roaded and drilled since 1979 for mineral exploration and no longer meet the established roadless criteria. These areas are Pixley Creek 1,040 acres), Merritt Mountain (840 acres), Enright Hill (800 acres), and Cactus Cairn (680 acres), and will be dropped from further analysis.

The natural appearance and integrity of this unit is low to moderate because of the large amount of improvements and past mining activity.

The opportunities for solitude and primitive recreation are low except for portions of North Merritt Mountain which would be moderate because of more difficult access. There are no special challenging experiences. There are no special features in this unit such as threatened or endangered species or unusual historical or scientific study areas.

3. Availability

Recreation use for deer hunting and game bird hunting is of moderate potential and primarily of the motorized vehicle type. The overall potential to increase this type of dispersed recreation is moderate if the private land access problems can be mitigated.

This area lies within one of the most important deer hunting areas within the state. All portions are used by summering deer. The potential for improving deer range, which is presently in excellent condition, is low.

Watershed value is high with important water flow contributions to both the Bruneau and Owyhee River systems. Present watershed conditions are good to excellent with only a few headcuts present at scattered sites. The potential to increase watershed value is low with the exception of installing small drop structures to stop headcutting at select areas.

Livestock operations consist of cattle grazing. Forage production and condition is good to excellent. Most operations are managed under an approved management plan. The potential to increase cattle use over present numbers and seasons is low.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access were provided.

High mineral values, exploration, and ore extraction have been and continue to be present. The USGS classified this area as having a high mineral potential. Uranium, gold, silver, lead, zinc, copper, and antimony occur in and adjacent to this area. Uranium, silver, and gold deposits are expected to be developed in the future in and about Merritt Mountain for prospects presently under exploration. Much of the area is staked with mining claims. Several major mining companies have staked mining claims and conducted geologic sampling in this unit. The geology of this area (Paleozoic sediments intruded by granitic stocks, high and low angle faulting including the Roberts Mountain Thrust Fault, and known mineral occurrences) make this a highly probable area for mineral potential.

Archaeological sites with evidence of early American activity are present around springs and perennial water sources. No unusual or significant cultural sites are known to be present.

Present land use authorizations include mining claims (nearly the entire unit is staked with active mining claims), small scale mining or extraction, and grazing permits. A small structure exists on private land in Yankee Bill Creek.

Fire potential is low due to good moisture and green succulent fuels that carry through for nearly the entire summer season.

Insect and disease are not problems within this unit. Private lands occur throughout this unit and could create future access problems since no Forest right-of-ways exist across private land.

4. Need

The nearest wilderness area is the Jarbidge Wilderness located approximately 30 air miles to the east. The nearest population centers are Elko, Nevada, 85 miles; Boise, Idaho, 150 miles; and Twin Falls, Idaho, 130 miles.

During the RARE II process, local opinion strongly favored non-wilderness designation and nonlocal opinion moderately favored nonwilderness designation. The area was allocated to nonwilderness.

This portion of the Great Basin ecosystem is represented in the Jarbidge Wilderness and is common throughout other areas of Nevada. It is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contact, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative.

Sturctural and nonstructural range and wildlife habitat improvements, as well as harvesting Christmas trees, are part of the scheduled management for the area. ORV use is expected to increase. The area has not been withdrawn from mineral entry. The area has a high mineral potential. It is likely that ore deposits will be developed in the future near Merritt Mountain. The high mineral potential in combination with the structural improvements will render portions of this area not available for wilderness consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

382 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	38,030	38,030	38,030			38,030	38,030		38,030
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				38,030					
All high except Lvstk									
All high except WL					38,030				
All moderate									
Wilderness								38,030	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 382 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will continue at present level. Same as J	Same as A	Same as A	Management will be at a level lower than present. Same as J	Management emphasizes all resources except wildlife. Same as J	Same as A	Same as A	Integrity and naturalness are low due to past mining activity and range improvements.	Same as A
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunities for solitude are low.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 382 ROADLESS AREA

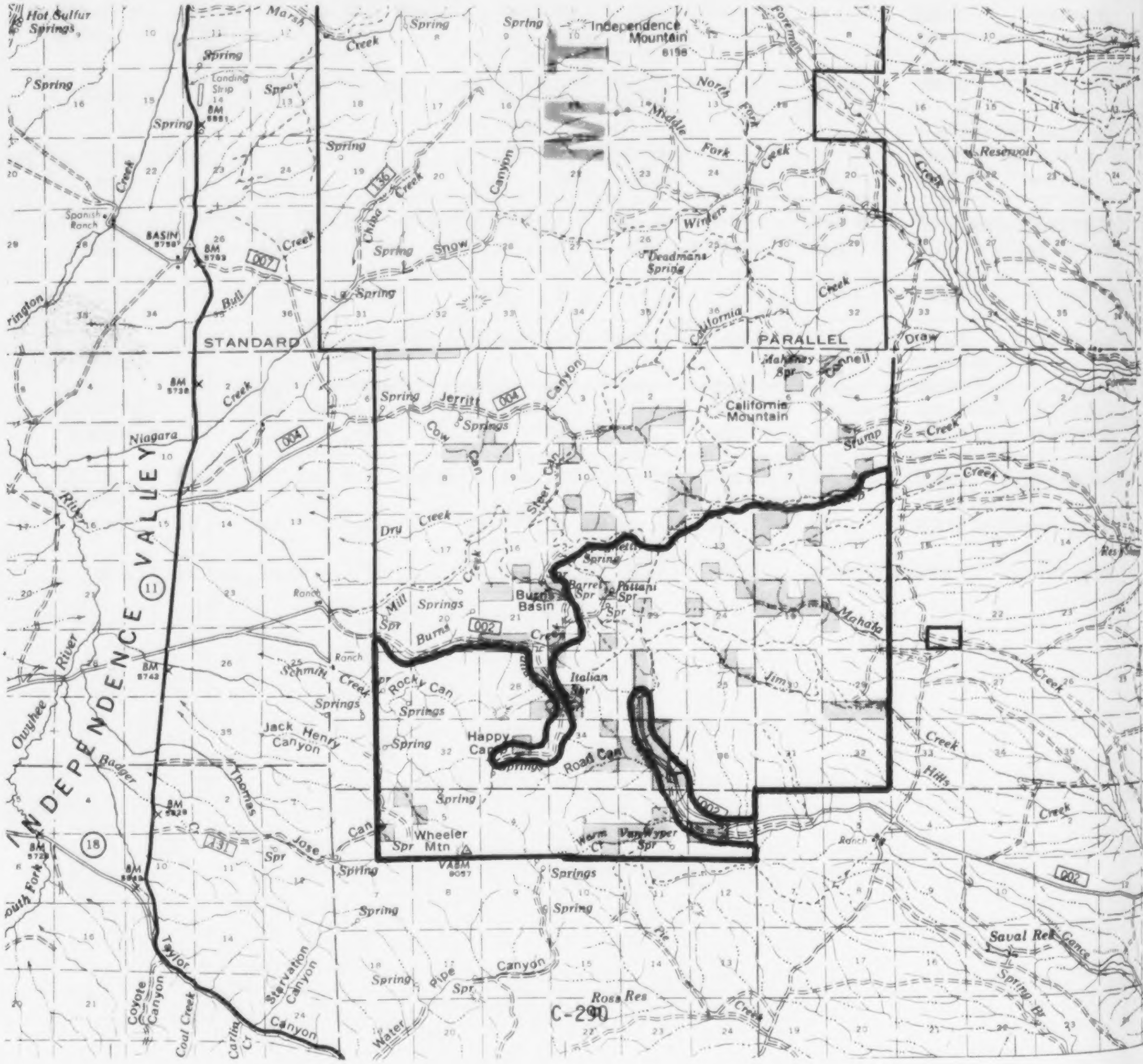
ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	38,030	-
Dispersed Rec.	MRVDS	-	-	-	-	-	-	-	5.11	-
NONWILDERNESS	ACRES	38,030	38,030	38,030	38,030	38,030	38,030	38,030	-	38,030
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	4.58	4.58	4.58	4.58	5.11	4.58	4.58	-	4.58
Wildlife Nonstructural Habitat Improv	ACRES	.026	.026	.026	.026	4.50	.026	.026	4.50	.026
WL/Fish Use	MWFUDS	2.17	2.17	2.17	2.16	2.17	2.17	2.17	2.16	2.17
Livestock	MAUMS	9.87	9.87	9.87	9.70	10.00	9.87	9.87	9.87	9.87
Fuelwood	MCORDS	.095	.095	.095	.095	.107	.095	.095	-	.095
Xmas Trees	MTREES	.009	.009	.009	.009	.009	.009	.009	-	.009
Sediment Yield	MTONS									
Soil Improvement	ACRES	.125	.125	.125	.125	1.42	.125	.125	1.39	.125
Minerals	CASES	7.88	7.88	7.88	6.14	7.88	7.88	7.88	7.88	7.88

ROADLESS AREA HAPPY CAMP, #383

1. Description

The Happy Camp Roadless Area is located on the south end of the Mountain City Ranger District. The unit is approximately 40 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Gance Creek road and several low standard roads and "jeep roads." Most of the access roads are encumbered by private land. No right-of-way easements exist for private lands.

This entire unit has been extensively roaded and drilled since 1979 and no longer meets the established roadless area criteria. Therefore, no further analysis will be made.



Hot Sulfur Springs
Independence Mountain
North Fork
Middle Fork
Deadmans Spring
California Creek
STANDARD
PARALLEL
California Mountain
Jerritt Canyon
Niagara
INDEPENDENCE VALLEY
Owyhee River
Buzzard Basin
Italian Bar
Happy Camp
Burns Springs
Jack Henry Canyon
Wheeler Mtn
Road Can
Mahala
Jim Creek
Starvation Canyon
Coyote Canyon
Coal Creek
Taylor Canyon
Saval Res
Ross Res
Pie Creek
Water Pipe Canyon
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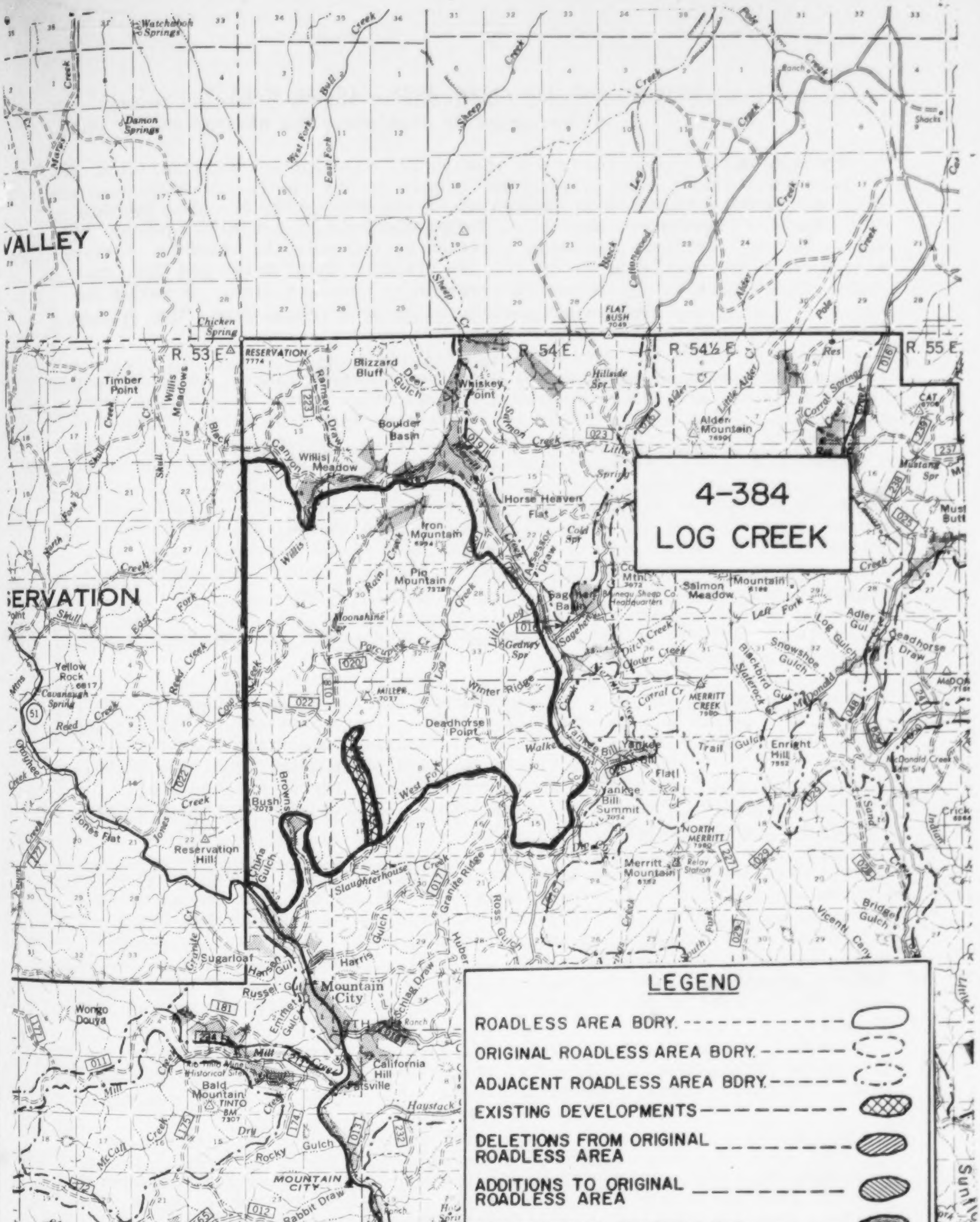

4-384
LOG CREEK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
VALLEY
RESERVATION
R. 53 E.
R. 54 E.
R. 54½ E.
R. 55 E.
Watchdoh Springs
Damon Springs
Chicken Spring
Timber Point
Willis Meadows
Blizzard Bluff
Whiskey Point
Boulder Basin
Willis Meadow
Horse Heaven Flat
Iron Mountain
Pie Mountain
Alder Mountain
Salmon Meadow
Sagehen Basin
Deadhorse Point
Yankee Bill Summit
Merritt Mountain
Enright Hill
Yellow Rock
Cavanaugh Spring
Reservation Hill
Jones Flat
Sugarloaf
Mountain City
California Hill
Bald Mountain
Wongo Douya
Log Creek
Little Log Creek
Slaughterhouse Creek
Granite Ridge
Winter Ridge
Merritt Creek
Rocky Gulch
Rabbit Draw
Crosby Chimney
Little Chicken Creek
Deadhorse Draw
McDonald Creek Dam Site

ROADLESS AREA LOG CREEK, #384 - 19,101 ACRES

1. Description

The Log Creek Roadless Area is located on the north side of the Mountain City Ranger District. This unit is approximately 75 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Yankee Bill Road on the east side and by the low standard Skull Creek and Cow Creek roads via the Duck Valley Indian Reservation on the west side. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main roads listed above.

This area is comprised primarily of broad round topped ridges, sloping into broad drainage bottoms. Meadows are larger than ususal and slopes more gentle than on most of the district. Elevations vary from a low of approximately 6,100 feet to 7,000 feet above sea level. Several small streams are present--most are intermittent--but even the perennial streams fluctuate greatly in volume from spring to fall. Fisheries are limited. Soils are generally moderately deep to deep. Air quality is excellent. Precipitation varies from about 20 inches to 30 inches or more annually. Soil erosion potential is generally moderate. Predominant wildlife species are: mule deer, cougar, coyote, badger, beaver, bobcat, chukar, and sage grouse. Streams within the unit are tributaries to Merritt Creek.

Rock types include Permo/Mesozoic sediments, Cretaceous granitic intrusives, and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. Aspen patches on most slopes are common and are not confined to drainage bottoms. Nearly all major drainages contain a narrow band of riparian vegetation consisting of aspen, mountain birch, meadow vegetation, and other water sensitive plants. Numerous springs, seeps, and small meadows occur throughout the area. The area is representative of the Intermountain sagebrush/wheatgrass-blugrass, sagebrush steppe ecoystem (3130-44, 49).

The primary current uses are livestock grazing (cattle 5,730 AUM's) on parts of 5 cattle allotments; dispersed recreation hunting for deer and game birds (moderate use); and mining claims and exploration. A considerable number of fences and water developments are within this unit. In addition, about 400 acres of sagebrush were sprayed in 1981. These improvements enable implementation of intensive grazing systems on these allotments. The unit's appearance is that of well vegetated, rolling foothills with numerous stands of aspen.

The chief attraction is dispersed recreation hunting for deer and game birds. Estimated annual recreation use is 1,400 RVD's.

2. Capability

A municipal water system for Mountain City is present within the south central portion of the area (168 acres). This area no longer meets the roadless area criteria and will be deleted for analysis purposes.

The natural appearance and integrity of the area is low because of the nature of the terrain and prevalence of improvements.

The opportunities for solitude and primitive recreation are also low due to the open country. There are no special challenging experiences. There are no special features of threatened or endangered plant and animal species or areas of special historical or scientific study opportunities.

3. Availability

Potential for the location of economic mineral deposits is moderate.

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy. The area has a moderate to high potential for increased activity.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer and for spring/fall range. No winter range is present. The potential to improve summer deer range is low since it is generally already in good to excellent condition. The potential to improve wildlife species diversity is also low.

Watershed value is moderate and present watershed condition is good to excellent. The potential to improve wildlife species diversity is low. The potential to improve watershed conditions is low, with the exception of small drop structures to stop headcutting in a few areas.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land uses include grazing and mining claims.

Fire potential is moderate due to the nature of the fuels, and insects and disease are not problems in this unit. Access across the Duck Valley Indian Reservation on the west side of the area could be a problem, as no rights-of-way have been acquired.

4. Need

The adjacent Jarbidge Wilderness is located approximately 21 air miles away distances are: Elko, Nevada, 75 miles; Twin Falls, Idaho, 190 miles; and Boise, Idaho, 180 miles.

During the RARE II process, both local and nonlocal opinion strongly favored non-wilderness designation for this area. The area was allocated to non-wilderness.

The portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada and southern Idaho. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvements, as well as harvesting Christmas trees, are part of the scheduled management of the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. Potential for the location of economic deposits is moderate. Due to the extent of existing unimproved roads coupled with increased ORV use, structural improvements and anticipated mining developments much, if not all, of the area would not be available for future wilderness consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 384 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		19360	19360			19360	19360		19360
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min(H), MDisp/Wood Prod/Dev Rec (M)									
All low				19360					
All high except Lvstk									
All high except WL					19360				
All moderate	259								
Wilderness	19101							19360	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 384 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	99% of the area designated as wilderness. Same as J	Management will continue at present level. Same as J	Same as C	Management will be at a low emphasis level. Same as J	Management will emphasize all resources except wildlife. Same as J	Same as C	Same as C	Integrity and naturalness are low due to the nature of the terrain and prevalence of improvements.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunities are low due to open terrain.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude .	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 384 ROADLESS AREA

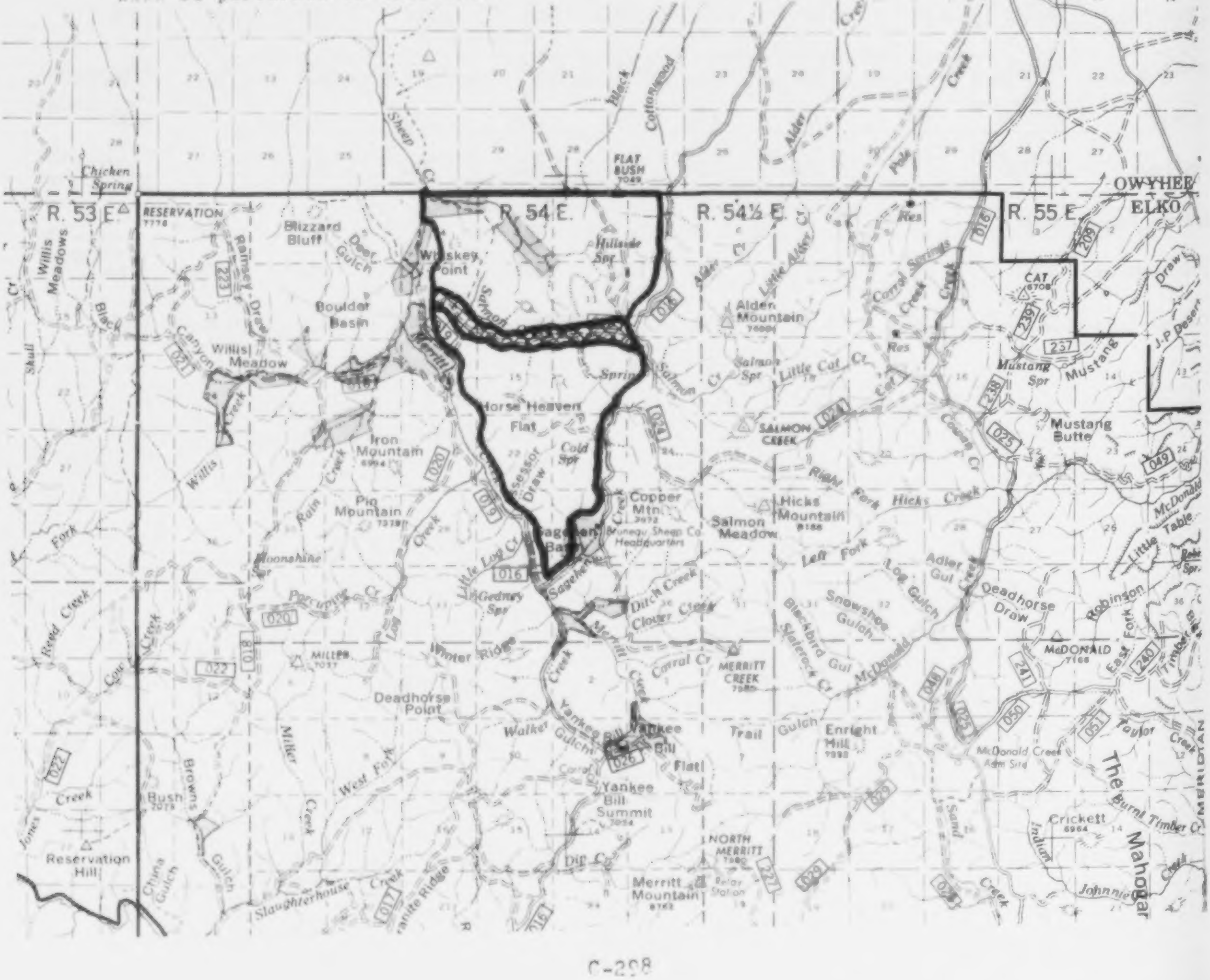
ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	19,101	-	-	-	-	-	-	19,360	-
Dispersed Rec	MRVDS	2.41	-	-	-	-	-	-	2.44	-
NONWILDERNESS	ACRES	259	19,360	19,360	19,360	19,360	19,360	19,360	—	19,360
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	.030	2.19	2.19	2.19	2.44	2.19	2.19	-	2.19
Wildlife Nonstructural Habitat Improv	ACRES	2.16	.026	.026	.026	2.16	.026	.026	2.16	.026
WL/Fish Use	MWFUDS	1.03	1.04	1.04	1.03	1.03	1.04	1.04	1.03	1.04
Livestock	MAUMS	4.72	4.72	4.72	4.64	4.78	4.72	4.72	4.72	4.72
Fuelwood	MCORDS	.001	.046	.046	.046	.052	.046	.046	-	.046
Xmas Trees	MTREES	-	.004	.004	.004	.004	.004	.004	-	.004
Sediment Yield	MTONS									
Soil Improvement	ACRES	.368	.060	.060	.060	.680	.060	.060	.368	.060
Minerals	CASES	3.34	3.34	3.34	2.95	3.78	3.34	3.34	3.34	3.34

ROADLESS AREA SALMON CREEK, #385 - 6,200 ACRES

1. Description

The Salmon Creek Roadless Area is located on the northwest side of the Mountain City Ranger District and adjoins the Idaho border. This unit is approximately 80 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Yankee Bill/Salmon Creek road on the east side of the unit. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main road listed above. Public access is generally restricted on the west side of this unit due to lack of rights-of-way through private land.

A maintained road now passes east/west through this unit, cutting it into two separate parts. Both parts are now less than 5,000 acres in size and no longer meet the criteria for wilderness consideration. No further analysis will be performed on this unit.

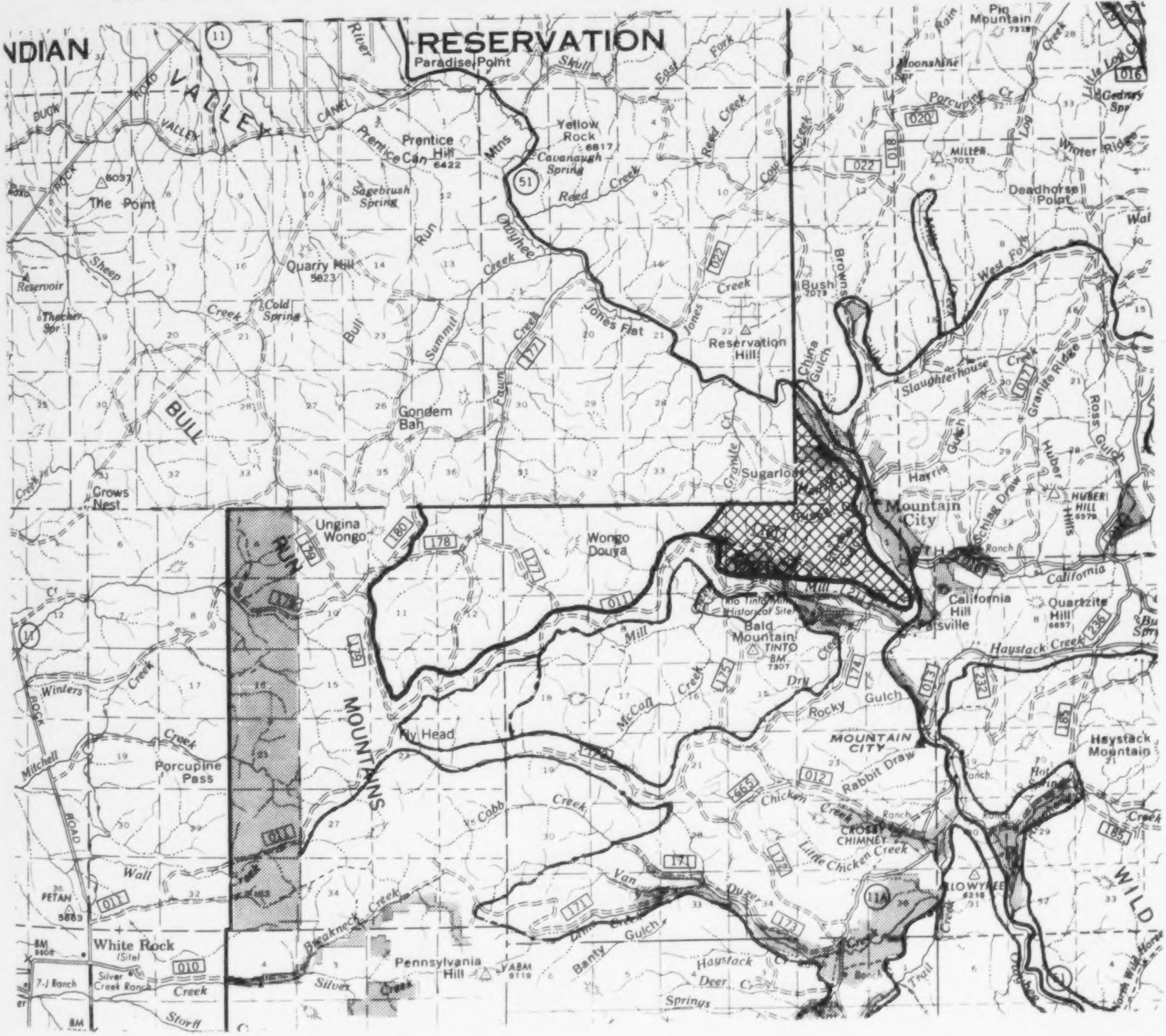


R. 53 E.
R. 54 E.
R. 54½ E.
R. 55 E.
OWYHEE
ELKO
Chicken Spring
RESERVATION
Blizzard Bluff
Deer Gulch
Whiskey Point
Boulder Basin
Willis Meadows
Willis Meadow
Canyon
Ramsey Draw
Hillside Spr
FLAT BUSH
Black
Cottonwood
Alder Creek
Pole Creek
Sheep Cr
Salmon Creek
Alder Mountain
Little Alder Cr
Corral Springs
Salmon Spr
Little Cat Cr
Horse Heaven Flat
Cold Spr
Assessor Draw
Iron Mountain
Pie Mountain
Rain Creek
Copper Mtn
Sagehen Basin
Salmon Meadow
Hicks Mountain
Hicks Creek
Right Fork
Left Fork
Log Gulch
Snowshoe Gulch
Adler Gul
Deadhorse Draw
Mustang Spr
Mustang Butte
CAT
McDonald
Little Table
Robinson
Moonshine
Porcupine Cr
Gedney Spr
Little Log Cr
Ditch Creek
Clover Creek
Winter Ridge
Merritt Creek
Corral Cr
MERRITT CREEK
Blackbird Gul
Slaterock Gul
MILLER
Deadhorse Point
Walker Gulch
Yankee Bill
Yankee Flat
Yankee Bill Summit
Trail Gulch
Enright Hill
McDonald Creek Res Site
Taylor Creek
The Burnt Timber Cr
Crickett
Indian
Johnnie
Mahogany
NORTH MERRITT
Merritt Mountain
Relay Station
Dip Cr
Slaughterhouse Creek
Granite Ridge
West Fork
Miller Creek
Browns Gulch
China Gulch
Bush
Jones Creek
Reservation Hill
Reed Creek
Cow Creek
Fork
Skull
Willis
016
018
020
021
022
025
026
029
049
050
051
237
238
239
241
280
MERIDIAN

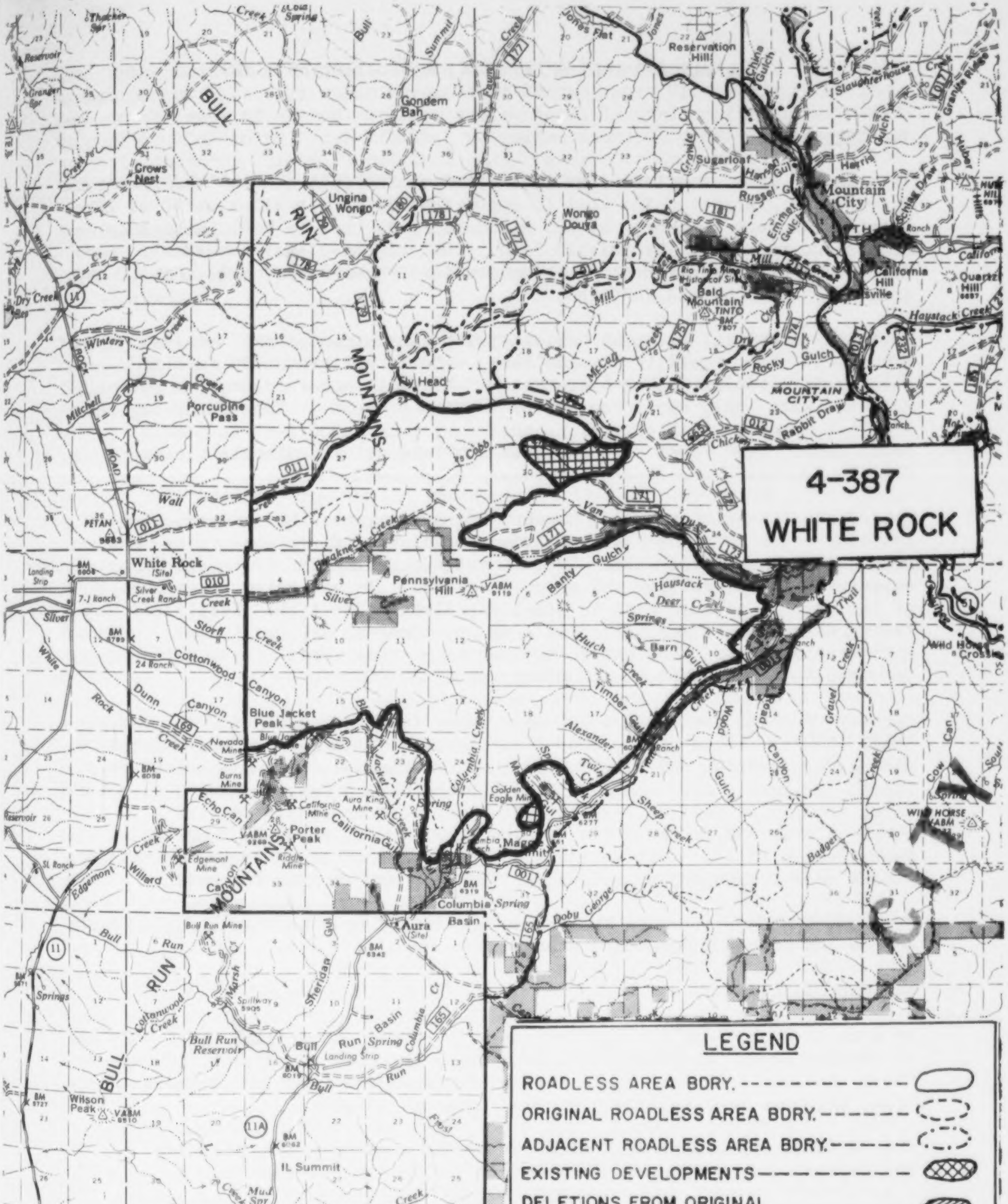
ROADLESS AREA FAWN CREEK, #386 - 9,060 ACRES

1. Description

Extensive mining activity has occurred at Rio Tinto, adjacent to the southeastern portion of the unit. In addition, the municipality of Mountain City has a solid waste dump and sewer lagoon located in the eastern portion of the unit. Both of these areas no longer meet the roadless area criteria and have been deleted, thereby reducing the size of the unit by 2,000 acres.



NDIAN
RESERVATION
VALLEY
Paradise Point
Prentice Hill
Yellow Rock
Cavanaugh Spring
Reed Creek
The Point
Sagebrush Spring
Quarry Mill
Cold Spring
Owyhee
Jones Flat
Reservation Hill
Bush
China Gulch
Slaughterhouse Creek
Granite Ridge
Moonshine Spr
Pin Mountain
Porcupine Cr
MILLER
Deadhorse Point
Winter Ridge
West Fork
BULL
Gondem Bah
Grows Nest
Sugarloaf
Mountain City
Harris Gulch
HUBER HILL
Ungina Wongo
Wongo Douya
RUN
Rio Tinto Historical Site
Bald Mountain TINTO
California Hill
Patsville
Quartzite Hill
Haystack Creek
California
MOUNTAINS
Fly Head
McCall Creek
Rocky Gulch
MOUNTAIN CITY
Rabbit Draw
Haystack Mountain
Porcupine Pass
Winters Creek
Mitchell
ROAD
Cobb Creek
Chicken Creek
Little Chicken Creek
CROSS CHIMNEY
LOWYHEE
Van Duzer
Wall
PETAN
White Rock
Pennsylvania Hill
Breakneck Creek
Silver Creek
Banty Gulch
Haystack Deer Cr
Springs
WILD
Storff

4-387
WHITE ROCK
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
BULL RUN MOUNTAINS
Mountain City
California Hill
Bald Mountain
Rio Tinto Mine Historical Site
Sugarloaf
Reservation Hill
Jones Flat
Gondem Bah
Ungina Wongo
Wongo Douga
Crows Nest
Porcupine Pass
Fly Head
Pennsylvania Hill
White Rock (Site)
PETAN
Blue Jacket Peak
Porter Peak
Columbia Spring
Aura Basin
Bull Run Reservoir
Wilson Peak
IL Summit
Deep Creek Junction
Lime Mtn.
Wild Horse Crossing
WILD HORSE
CITY
Edgemont
Nevada Mine
Burns Mine
California Mine
Aura King Mine
Golden Eagle Mine
Bull Run Mine
Haystack Creek
Rocky Gulch
Rabbit Draw
Van Duzer
Banty Gulch
Silver Creek
Cottonwood Canyon
Dunn Canyon
Mill Creek
McCann Creek
Timber Gulch
Alexander Creek
Sheep Creek
Badger Creek
Doby George Cr
Sheridan Gul
Columbia Creek
Jacket Creek
Echo Can
Willford Canyon
Winters Creek
Mitchell Creek
Wall Creek
White Rock Road
Slaughterhouse Creek
Granite Creek
Harris Gulch
Emmet Gulch
Russel Gul
China Gulch
Schoss Draw
Quartz Hill
Huber Hills

ROADLESS AREA WHITE ROCK, #387 - 22,375 ACRES

1. Description

The White Rock Roadless Area is located on the west side of the Mountain City Ranger District. The unit is approximately 55 air miles north of Elko, Nevada. Access is poor, by low standard roads (mostly 4x4), with only one access unencumbered by private land. No rights-of-way easements occur across any of the private land. Low standard "jeep roads" make much of this area accessible by 4x4 vehicles.

Numerous perennial streams exist, with most containing minimal trout fisheries. Air quality is excellent. Soils are generally deep and well developed, even at higher elevations. A low to moderate erosion potential exists, with only small amounts of erosion present. Topography is steep, but not rugged, with elevations that vary from 6,000 feet to nearly 9,300 feet above sea level. Rock types are Paleozoic sediments intruded by Triassic/Jurassic granites and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. This unit, however, contains some of the largest stands of alpine fir/limber pine on the District. There are also large continuous stands of aspen present, especially in the bottoms and on north slopes. An estimated 20 percent plus of the unit is covered with an aspen/fir/limber pine type. Nearly all major drainages contain a good riparian area and numerous springs, small meadows and seeps occur throughout the unit. This unit lies within the Intermountain sagebrush steppe ecosystem (3130-49).

Primary current uses are livestock grazing (cattle - 1,500 AUM's, sheep - 3,600 AUM's) within portions of 4 cattle allotments and 6 sheep allotments; mining exploration and minor amounts of ore removal; and dispersed recreation, primarily deer and game bird hunting. Numerous fences and livestock water troughs as well as several "pit tanks" are present, primarily in the lower elevations. There is a low impact radio repeater and house on Pennsylvania Hill. The unit's appearance is that of a large mountainous island mass surrounded by some desert valleys and rolling foothills.

The chief attractions are two peaks over 9000 feet, heavily timbered north slopes and deer and game bird hunting.

2. Capability

An area in Cobb Creek has been extensively roaded and drilled since 1979 and no longer meets the established wilderness criteria (approx. 560 acres). There is also a similar small area in Maggie Gulch (near the Goldern Eagle Mine) that has been heavily disturbed (approx. 40 acres).

The natural appearance and integrity of the area is moderate to low due to the presence of numerous developments.

The opportunities for solitude and primitive recreation are low with the exception of the very upper portions of Pennyslvania Hill and Porter Peak due to the ease of access. There are no special challenging experiences such as rock climbing, ice fields, or jagged mountain peaks. There are no special features in this unit such as threatened or endangered species or unusual historical or scientific study areas.

3. Availability

High mineral values are apparent and evidenced by continuing exploration and ore extraction.

Recreation use for deer hunting and game bird hunting occurs primarily through the use of motorized vehicles. An overall increase in this type of dispersed recreation would occur if the private land access problems could be mitigated.

This area lies within one of the most important deer hunting areas within the state. All portions are used by summering deer and there is also a small, deer winter range on the southwest portion of this unit. The potential for improving deer range (which is presently in excellent condition) is low since winter ranges are not located on the Forest. There is a potential to increase game bird diversity by reintroducing historical species back into the area.

Watershed conditions and values are high, with much of the water used for irrigation purposes by downstream dependent ranchers. Present watershed condition is good to excellent with low potential to increase these conditions, with the exception of small inexpensive drop structures to prevent some areas from headcutting. Private land in Van Duzer and Cobb Creek was heavily dredged for gold in the early 1900's and again in 1940. This type of past activity is very evident with only marginal revegetation. It would be very expensive to correct this problem.

Livestock operations consist primarily of sheep grazing with cattle permitted in the lower elevations on the east and north portions of this unit. Forage production and condition is good to excellent. Most cattle operations are managed under an approved management plan with a management plan for sheep operations scheduled for completion soon. The potential to increase cattle use over present numbers and seasons is low because it is near current capacity. The potential to increase present sheep numbers and seasons upward toward that listed in the permit (much nonuse now occurs) would be high with more intensive management.

Commercial timber production is unfeasible, but firewood production could be increased if better access were provided

The USGS classified this area as having a high mineral potential. Gold, silver, lead, zinc, copper, tungsten, antimony, and iron occur in and adjacent to this area in four mining districts. Tungsten and gold deposits are expected to be developed in the near future in and about Pennsylvania Mountain from prospects presently under exploration. Active silver mining is sporadically going on in Columbia Basin and the southwest side of

Pennsylvania Mountain. Major companies have done regional sampling and geologic mapping and made repeated trips to this area. Gold placering has been done in the past in drainages on the northeast side since parent mineral deposits have not yet been discovered. The geology of this area (Paleozoic sediments intruded by granitic stocks, high and low angle faulting, known mineral occurrences) make this a highly probable area of mineral potential.

Archaeological sites with evidence of early American activity are present around springs and perennial water sources. No unusual or significant cultural sites are known to be present.

Present land use authorization includes mining claims (nearly the entire unit is staked with active mining claims), small scale mining and or extraction, grazing permits, and a State permit for a radio relay station on Pennsylvania Hill. Two small, low standard mining structures exist in Cobb Creek. One has been abandoned and will be removed in 1984.

The potential for increased land use is very high for minerals and low for other activities.

Fire potential is low due to good moisture and green succulent fuels that carry through for nearly the entire summer season.

Insect and disease are not problems within this unit. Private lands occur on the west side of this unit and could create future access problems since no Forest rights-of-way exist across continuous private land adjacent to the Forest boundary.

4. Need

The nearest wilderness area is the Jarbidge Wilderness located approximately 30 air miles to the east. The nearest population centers are Elko, Nevada, 85 miles; Boise, Idaho, 150 miles; and Twin Falls, Idaho, 130 miles.

During the RARE II process, local opinion strongly favored non-wilderness designation and nonlocal opinion moderately favored non-wilderness designation. The area was allocated to non-wilderness.

This portion of the Intermountain sagebrush ecosystem is represented in the Jarbidge Wilderness and is common throughout other areas of Nevada. It is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. Ths was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvements, as well as harvesting Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase. The area has not been withdrawn from mineral entry. High mineral values are apparent and evidenced by continuing exploration and ore extraction. The area near Pennsylvania Creek and Columbia Basin has been a focal point for mineral exploration. It is likely that the western half of the roadless area will be altered to the point of not neeting wilderness qualifications for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 387 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)							
	A	C	D	E	F	H	I	J	K
Current Situation		23000	23000			23000	23000		23000
Lvstk/Min/Wood Prods (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Mins (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				23000					
All high except Lvstk									
All high except WL					23000				
All moderate	625								
Wilderness	22375							23000	

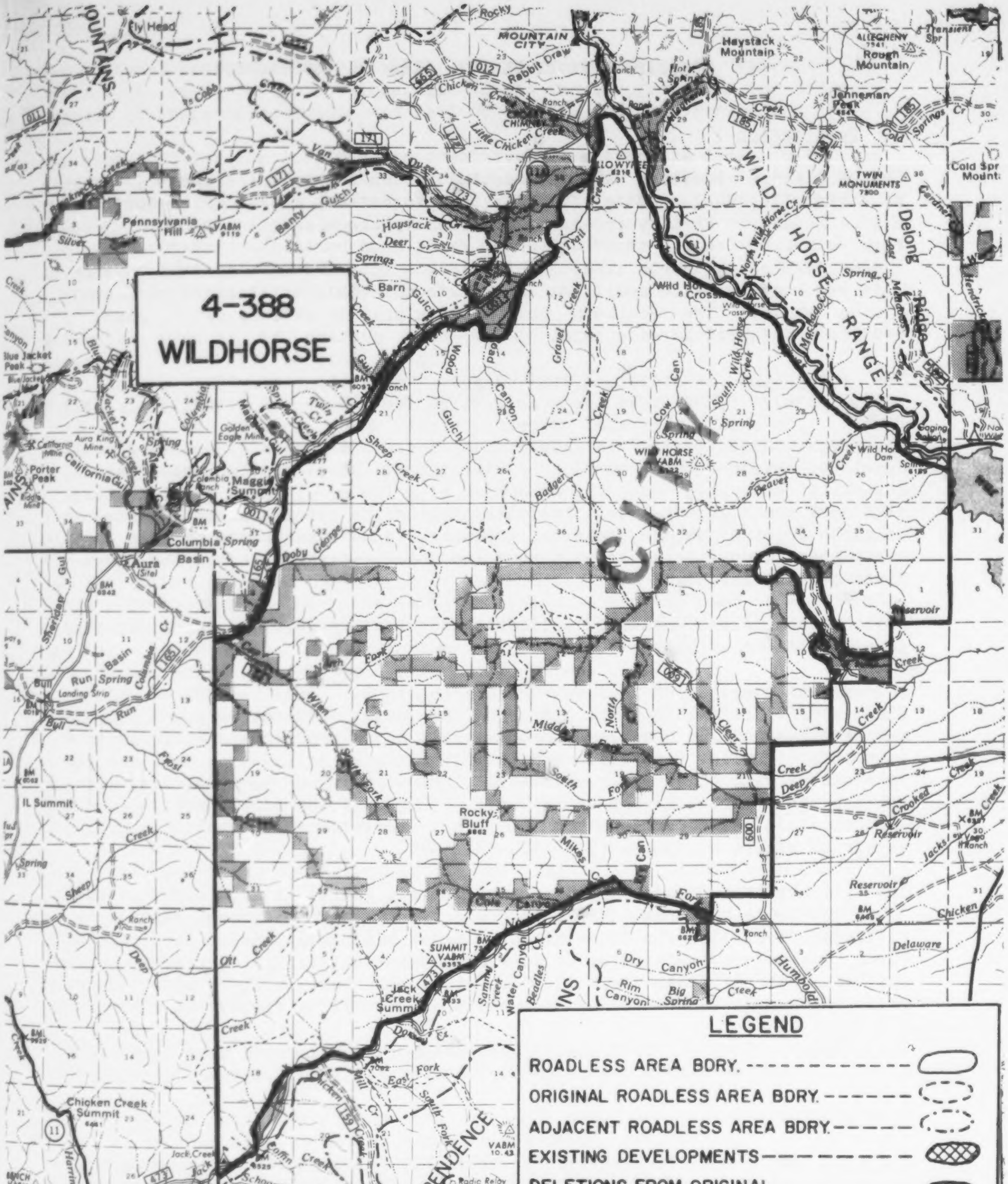
TABLE B—IMPACTS ON WILDERNESS CHARACTER

387 ROADLESS AREA

	FOREST PLAN ALTERNATIVE								
WILDERNESS CHARACTERISTICS	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	99% of the area will be designated as wilderness. Same as J	Management will continue at present level. Integrity will be low on entire area.	Same as C	Management level lower than present. Same as C	All resource emphasized except wildlife Same as C	Same as C	Same as C	Integrity and naturalness is moderate to low due to the number of developments.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunities for solitude are low.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 387 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	22,375	-	-	-	-	-	-	23,000	-
Dispersed Rec.	MRVDS	3.01	-	-	-	-	-	-	3.10	-
NONWILDERNESS	ACRES	625	23,000	23,000	23,000	23,000	23,000	23,000	-	23,000
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	.077	2.78	2.78	2.78	3.10	2.78	2.78	0	2.78
Wildlife Nonstructural Habitat Improv	ACRES	2.73	.026	.026	.026	2.73	.026	.026	2.73	.026
WL/Fish Use	MWFUDS	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
Livestock	MAUMS	5.90	5.99	5.99	5.89	6.06	5.99	5.99	5.89	5.99
Fuelwood	MCORDS	.002	.057	.057	.057	.065	.057	.057	-	.057
Xmas Trees	MTREES	-	.005	.005	.005	.005	.005	.005	-	.005
Sediment Yield	MTONS									
Soil Improvement	ACRES	.259	.076	.076	.076	.861	.076	.076	.259	.076
Minerals	CASES	4.23	4.23	4.23	3.73	4.78	4.23	4.23	4.23	4.23


4-388
WILDHORSE
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
MOUNTAIN CITY
Haystack Mountain
Rough Mountain
Jenneman Peak
TWIN MONUMENTS
WILD HORSE RANGE
Delong Ridge
Pennsylvania Hill
Blue Jacket Peak
Porter Peak
Maggie Summit
Columbia Spring
Columbia Basin
Aura Basin
Bull Run Spring
Landing Strip
IL Summit
Chicken Creek Summit
Jack Creek
Jack Creek Summit
SUMMIT VABM
Rocky Bluff
WILD HORSE VABM
Wild Horse Crossing
Wild Horse Dam
Reservoir
Rabbit Draw
Hot Springs
Deep Creek
Crooked Creek
Delaware
Dry Canyon
Rim Canyon
Big Spring
INDEPENDENCE
Jack's Peak
Schoonover
Coffin Creek
Harrington

ROADLESS AREA WILDHORSE, #388 - 59,800 ACRES

1. Description

The Wildhorse Roadless Area is located in the south central part of the Mountain City Ranger District. It is approximately 65 air miles north of Elko, Nevada. Primary access is provided by the moderate standard North Fork/Jack Creek road, the Trail Creek road, and by the high standard State Highway 225 on the north side of this unit. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main roads listed above. The southern half of this unit is made up of a maze of private and Forest Service land.

The topography is steep and semi-rugged. Elevations vary from a low of approximately 5,500 feet to nearly 8,900 feet above sea level at Rocky Bluff. Several perennial streams exist which provide native trout fisheries. Air quality is excellent. Soils are generally deep and well developed except for the very upper elevations. Soil erosion potential is generally moderate, with the exception of a few small areas of high potential near the higher peaks. Predominant wildlife species are: mule deer, cougar, coyote, badger, beaver, bobcats, and sage grouse. This unit contributes a considerable portion to the volume of the water in the Owyhee River headwaters.

Rock types are Permo/Mesozoic sediments and Tertiary rhyolites, tuffs, and granitic intrusives.

Predominant vegetation is a sagebrush/grass type. Small stands of alpine fir/limber pine exist on the higher north slopes. Extensive aspen stands are found along the drainages. Nearly all major drainages contain a good band of riparian vegetation consisting of aspen, alder, small meadow vegetation, and other water-sensitive plants. Numerous springs, seeps, and small meadows occur throughout the unit. This unit is representative of the Intermountain sagebrush/western ponderosa forest, wheatgrass-bluegrass, sagebrush steppe ecosystem (3130-10, 44, 49).

The primary current uses are livestock grazing (cattle 11,414 AUM's, sheep 5,093 AUM's) on parts of 5 cattle allotments and 4 sheep allotments; dispersed recreation for deer and game birds; mining claims and exploration. Fence structures and water developments exist to a high degree on the eastern half of this area. The unit's appearance is that of a large mountainous mass surrounded by deep canyons and rolling foothills.

The chief attraction is dispersed recreation, hunting for deer and game birds. Total recreation use is estimated at 5,300 RVD's/year.

2. Capability

Although past mineral activity has been minimal, there is considerable interest in this area, and several major mining companies are actively staking mining claims in the unit.

The natural appearance and integrity of the upper elevations (above 7,800 feet), is high, with the lower elevations varying from low to moderate because of range improvements and past vegetative manipulation.

The opportunities for solitude and primitive recreation are moderate for the higher elevations and generally moderate and low for the lower elevations. This is due to the relative ease of access and the nature of the topography. There are no special challenging experiences such as rafting, rock climbing, ice fields, or jagged mountain peaks. There are no special features or threatened or endangered plant and animal species, or areas of special historical or scientific study opportunities.

Extensive amounts of private land within the area would affect the management integrity for wilderness.

3. Availability

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy, with a potential for increased activity of this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer, and for spring/fall range. The upper portions of the very important Mountain City deer winter range are located in the northern one-fourth of this unit. The potential to improve summer deer range is low since it is generally already in good to excellent condition. The potential to increase deer winter range would be quite costly. The potential is high to improve species diversity by reintroducing game birds, primarily sharptail and ruffed grouse.

Watershed condition and value is high since this unit produces a considerable amount of the Owyhee River headwaters flow. Present watershed condition is good with the exception of several small sites scattered throughout the unit. The potential to improve watershed conditions is generally low with the exception of small drop structures to stop headcutting in a few areas.

Livestock operations consist of cattle and sheep. The potential to increase cattle numbers is low since grazing capacity has been reached. With improved management, there may be an opportunity to increase sheep AUM's. All livestock operations are managed under approved management plans. Forage production is good to excellent, with a few exceptions primarily due to the adverse weather conditions near the higher elevations. Range conditions are also good.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access and higher demand occurred.

Active mineral exploration areas are presently small in total acreage. The USGS lists this area as having a moderate mineral potential. Potentially high productive geological conditions occur on parts of this unit. Antimony, barite, and gold occur within the unit. Regional geologic trends (barite and disseminated gold) are present and create favorable areas of mineralization. Oil and gas potential is reported to be low in this unit.

There has been a recent discovery of disseminated gold on the northwest side of this unit with a high potential for active mining. This discovery and associated heavy staking by 4-5 companies and individuals has just occurred during the summer of 1983. The unit has moderate potential for development of geothermal resources.

Numerous early American archaeological sites occur within and immediately adjacent to this unit; however, no unusual or significant sites have been found.

Authorized land uses include grazing and mining claims. The potential for increased land use is high for minerals.

Fire potential varies from high in the low elevations along the Owyhee River to low in the upper elevations above 7,800 feet due to precipitation patterns.

Insects and disease are not problems in this unit. Private lands on the east and west sides of this unit presently restrict public access. The private lands make up approximately 16 percent of the area.

4. Need

The Jarbidge Wilderness is located approximately 30 air miles away at the closest point. The nearest population center and approximate distance is: Elko, Nevada, 70 miles; Twin Falls, Idaho, 90 miles; and Boise, Idaho, 200 miles.

During the RARE II process, the majority of local sentiment was to keep this unit as a non-wilderness area. Nonlocal sentiment slightly favored non-wilderness designation also. The area was classed as non-wilderness.

This portion of the Intermountain sagebrush ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada. The bluegrass/wheatgrass ecosystem is probably not represented in an exising wilderness system. Wilderness designation is not needed to represent the western ponderosa forest and sagebrush steppe ecosystems.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

Several mining companies have commented on their interest in this unit as an exploration target.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvements, as well as the harvesting of Christmas trees are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. The USGS lists this area as having a moderate mineral potential. Potentially high productive conditions occur on parts of the area. The structural range or wildlife improvements, increased ORV use, and unscheduled mining developments will have the greatest impact on the amount of wilderness available for future conditions. The amount of private land within the southern portion of the roadless area almost precludes wilderness management.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE

388 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	59800	59800	59800			59800	59800		59800
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/Wl/NmDisp/Min (H), MDisp/Wood prod/Dev Rec (M)									
All low				59800					
All high except Lvstk									
All high except WL					59800				
All moderate									
Wilderness								59800	

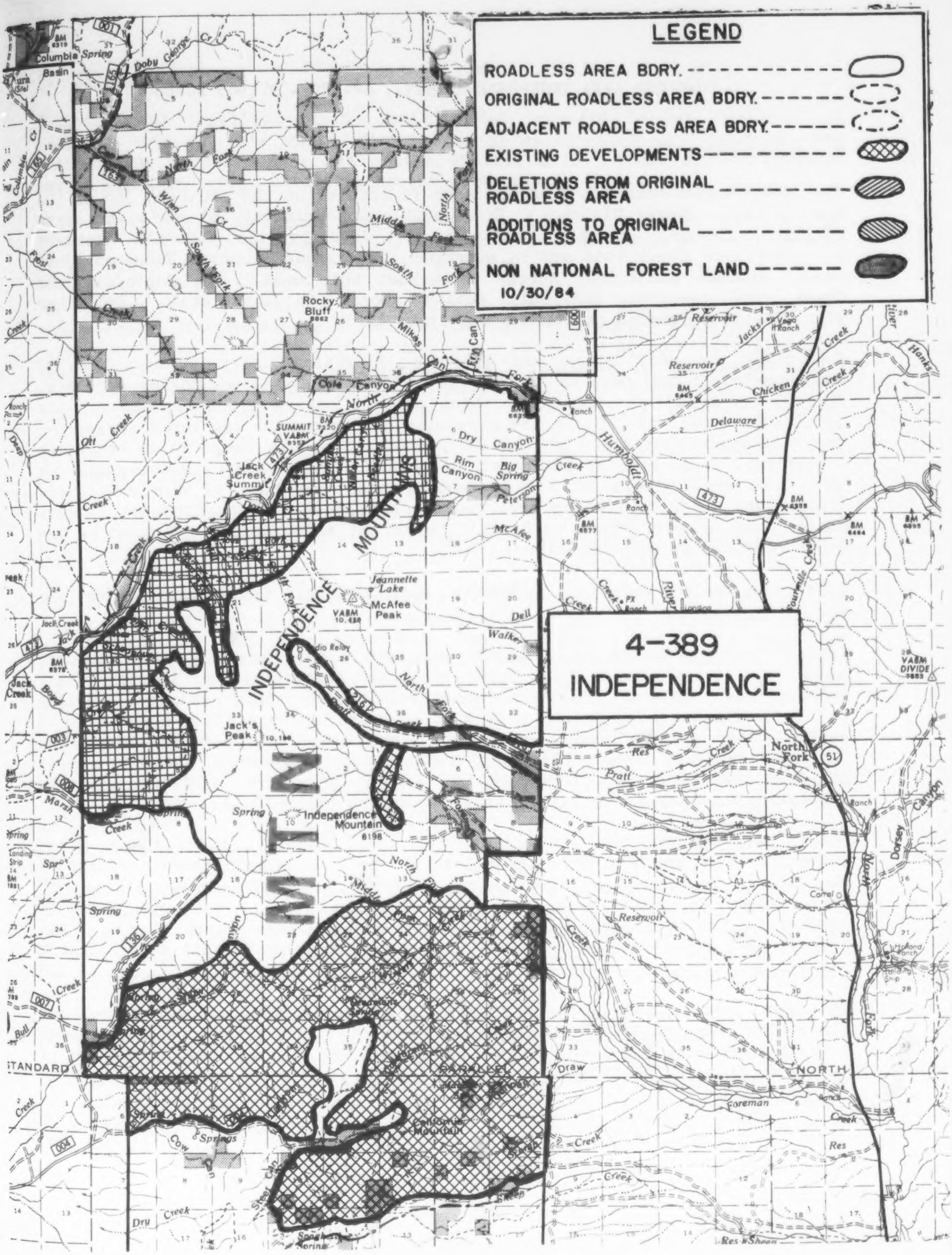
TABLE B—IMPACTS ON WILDERNESS CHARACTER

388 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will remain at the current level Integrity may be reduced at the higher elevations	Same as A	Same as A	Management will be at a level lower than present. Same as A	Emphasize all resources except wildlife. Same as A	Same as A	Same as A	Opportunities for integrity and naturalness are better at the higher elevations. Extensive private land impact integrity.	Same as A
SOLITUDE	Solitude may be reduced at the higher elevations.	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A	Opportunities for solitude are moderate for the upper elevations and low for the lower elevational areas.	Same as A
PRIMITIVE RECREATION	Same as solitude.	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A	Same as solitude.	Same as A
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 388 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	59,800	-
Dispersed Rec	MRVDS	-	-	-	-	-	-	-	8.80	-
NONWILDERNESS	ACRES	59,800	59,800	59,800	59,800	59,800	59,800	59,800	-	59,800
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	7.89	7.89	7.89	7.89	8.80	7.89	7.89	-	7.89
Wildlife Nonstructural Habitat Improv	ACRES	.05	.05	.05	.05	7.77	.05	.05	7.77	7.77
WL/Fish Use	MWFUDS	3.74	3.74	3.74	3.73	3.73	3.74	3.74	2.96	3.74
Livestock	MAUMS	17.01	17.01	17.01	16.73	17.23	17.01	17.01	16.73	17.01
Fuelwood	MCORDS	-	-	-	-	-	-	-	-	-
Xmas Trees	MTREES	.16	.16	.16	.16	.07	.16	.16	-	.16
Sediment Yield	MTONS									
Soil Improvement	ACRES	.22	.22	.22	.22	2.45	.22	.22	1.33	.22
Minerals	CASES	6.00	6.00	6.00	10.59	13.32	6.00	6.00	12.02	6.00


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-389
INDEPENDENCE
INDEPENDENCE MOUNTAINS
MTN
Jack Creek Summit
McAfee Peak
Jeannette Lake
Jack's Peak
Independence Mountain
Rocky Bluff
Humboldt River
North Fork
Columbia Spring
Doby George Cr
Cole Canyon
Dry Canyon
Rim Canyon
Big Spring
Delaware
Chicken Creek
Dorsey Canyon
VABM DIVIDE
STANDARD
NORTH

ROADLESS AREA INDEPENDENCE MTN., #4-389 - 27,905 ACRES

1. Description

The Independence Mountain Roadless Area is located on the southern end of the Mountain City Ranger District. This unit is approximately 50 air miles north of Elko, Nevada. Primary access is provided by the moderate standard Northfork/Jack Creek road and by numerous low standard roads. Numerous "jeep roads" provide additional access throughout this unit. The Northfork/jack Creek road provides the only public access to this unit. No other right-of-way easements exist across private land.

Topography is very steep and rugged. Elevations vary from a low of approximately 5,300 feet to 10,400 feet above sea level at McAfee Mountain. Several perennial streams exist which support native trout fisheries. air quality is excellent. Soils are generally deep and well developed except for the very upper elevations of the Independence Mountain Range which nears the timberline. Soil erosion potential is generally moderrate with the exception of a few small areas of high potential near the tops of the mountains. Predominant wildlife species are: grouse, mule deer, cougar, coyote, badger, beaver, and bobcat. This unit contributes the major volume of water to the North Fork of the Humboldt River.

Tock types include Paleozoic sediments, Permo/Mesozoic sediments, and Tertiary volcanics.

Predominant vegetation is a sagebrush/grass type. significant stands of alpine fir/limber pine exist on north/northwest slopes and near the top of the Independence Mountains. Extensive aspen stands occur along drainages. Nearly all major drainages contain a good band of riparian vegetation consisting of aspen, alder, small meadow vegetation, and other water sensitive-plants. Numerrous springs, seeps, and small meadows occur throughout the unit. This unit is part of the Intermountain sagebrush/western ponderosa forest, wheatgrass-bluegrass, sagebrush steppe ecosystem (3130-10, 44, 49).

The primary current uses are livestock grazing (cattle - 8,451 AUM's, sheep 9,816 AUM's) on parts of 5 cattle allotments and 5 sheep allotments; dispersed recreation, hunting deer, game birds, and cougar; and mining claims and exploration. Fence structures and water troughs exist, but are primarily limited to the lower elevations. The unit's appearance is that of a large mountainous mass surrounded by deep canyons, rolling foothills and desert valleys.

The chief attractions are the large Independence Mountain landmass with elevations over 10,000 feet, heavily timbered north slopes, and dispersed recreation hunting for deer, cougar, and game birds. Annual recreation use is estimated to be 3,400 RVD's.

2. Capability

Extensive but localized mining activity has occurred in the northern and southern ends of this unit. Minor mineral exploration has occurred near Independence Mountain near the center of this unit. These areas no longer meet the roadless area crriteria and will receive no future analysis.

The natural appearance and integrity of the upper elevations (above 7,800 feet) is high, with the lower elevations varying from low to moderate because of the number of improvements and mining activity.

The opportunities for solitude and primitive recreation are high and moderate, respectively, for the higher elevations and generally moderate and low for the lower elevations due the country's openness. There are no special challenging experiences. There are no special features, threatened or endangered plants or areas of special historical or scientific study opportunities. The unit does support populations of the Lahontan Cutthroat trout, a threatened species of fish.

3. Availability

Motorized and nonmotorized recreation for deer, bird, and cougar hunting is presently heavy with a moderate to high potential for increased activity of ;this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer and for spring/fall range. The potential to improve summer deer range is low since it is generally already in good to excellent condition. The potential is high to improve species diversity by reintroducing game birds, primarily sharptail and ruffed grouse.

Watershed condition and value is high, since this unit produces the majority of the flow of the North Fork of the Humboldt River. Present watershed conditions are good to excellent with the exception of several small sites on the upper Independence Range. The potential to improve watershed conditions is generally low with the exception of small drop structures to stop headcutting in a few select areas.

Livestock operations consist of cattle and sheep. The potential to increase cattle numberrs is low with a moderate potential to increase sheep AUM's. All livestock operations are managed under approved management plans. Forage production and condition is good to excellent with a few exceptions, primarily due to the adverse weather conditions near the top of the Independence Range.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access and higher demand occurred.

Overall mining potential is high for this unit. The unit is heavily staked with mining claims. The USGS lists this area as having a high mineral potential. Several known mineral deposits occur in or immediately adjacent to this unit.

Potential highly productive geologic conditions occur over most of this unit. Zinc, mercury, manganese, antimony, barite, and gold occur within the unit. Regional geologic trends (barite and disseminated gold) are present and create faborable areas of mineralization. It is anticipated that another major gold deposit will be developed in this unit. Oil and gas potential is low.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land use includes grazing, a small radio repeater near McAffee Peak, mining claims, and extensive mineral exploration. The potential for increased land use is high for minerals.

Fire potential varies from high in the lower elevations because of flashy fuels to low in the upper elevations above 7,800 feet due to greater precipitation.

Insects and disease are not problems in this unit. Private lands on the east and west sides of this unit presently restrict public access.

4. Need

The Jarbidge Wilderness is located approximately 40 air miles away at the closest point. The nearest population centers and approximate distances are: Elko, Nevada, 45 miles; Twin Falls, Idaho, 130 miles; and Boise, Idaho 200 miles.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a non-wilderness area. Nonlocal opinion moderately favored non-wilderness designation. The area was allocated to non-wilderness.

This portion of the Great Basin ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were amde available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

Several major companies have expressed an interest in exploration and mining in this unit.

5. Preferred Alterantive Recommendation

This area is not recommended for wilderness designation in the Preferred Alternative (Alt. K).

Structural and nonstructural range and wildlife habitat improvement, as well as harvesting Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. Overall mining potential for the area is high. Unscheduled mining developments will have the greatest impact on the amount of wilderness available for future consideration. Based on the continuing exploration occurring, none of the area will be available for future wilderness consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 389 ROADLESS AREA

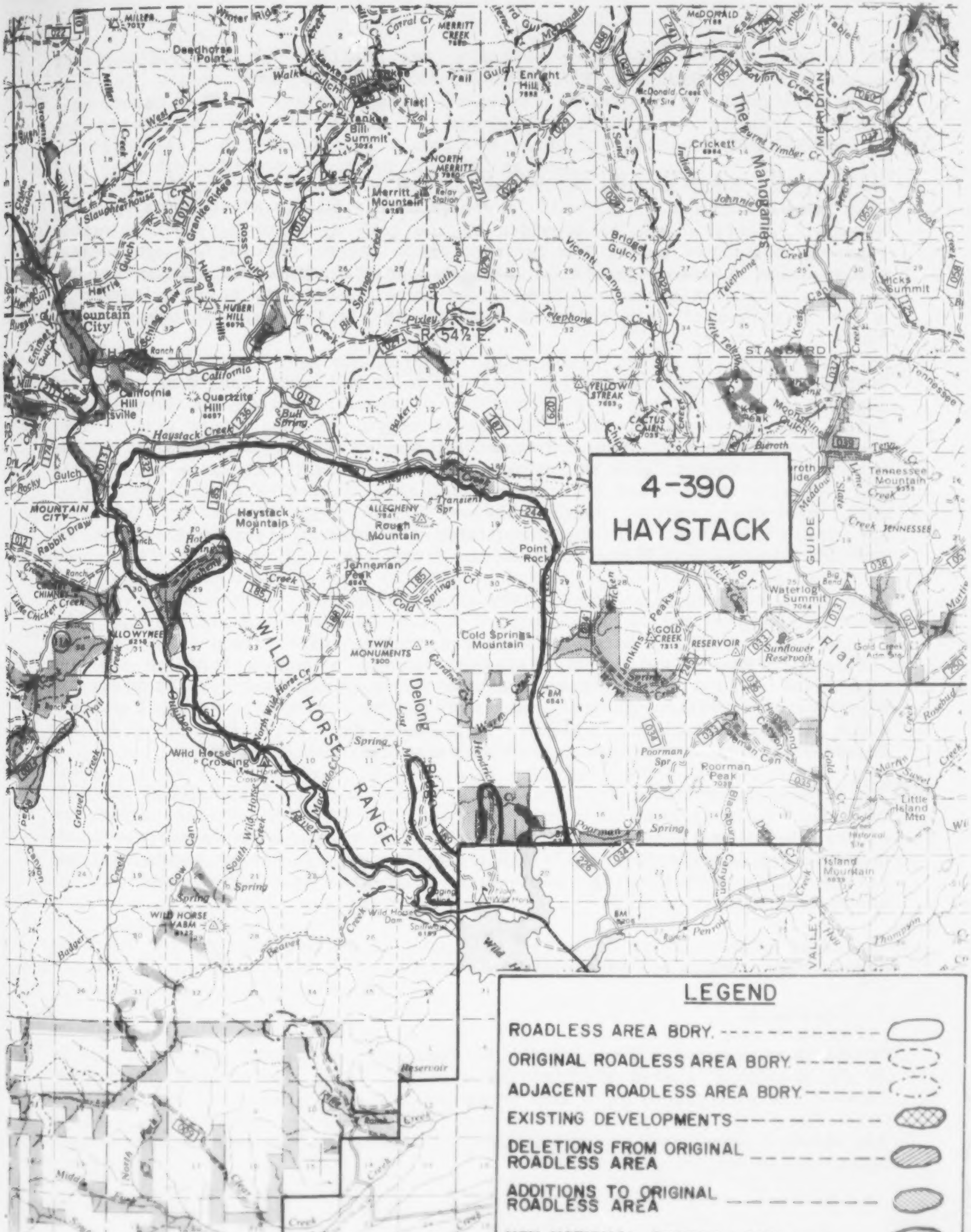
MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	27905	27905	27905			27905	27905		27905
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev REc (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				27905					
All high except Lvstk									
All high except WL					27905				
All moderate									
Wilderness								27905	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 389 ROADLESS AREA

	FOREST PLAN ALTERNATIVE								
WILDERNESS CHARACTERISTICS	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will remain at current level. Lower elevation areas will have less integrity.	Same as A	Same as A	Management level lower than at present. Same as A	Management will empasize all resources except wildlife. Same as A	Same as A	Same as A	Integrity and naturalness at higher elevations are high. Lower elevations are moderate to low.	Same as A
SOLITUDE	Some pattern exists for solitude	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A	Some pattern for solitude exists.	Same as A
PRIMITIVE RECREATION	Same as Solitude.	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A	Same as Solitude.	Same as A
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 389 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	27,905	-
Dispersed Rec	MRVDS	-	-	-	-	-	-	-	3.52	-
NONWILDERNESS	ACRES	27,905	27,905	27,905	27,905	27,905	27,905	27,905	-	27,905
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	3.16	3.16	3.16	3.52	3.16	3.16	3.16	-	3.16
Wildlife Nonstructural Habitat Improv	ACRES	24	.024	.024	3.12	.024	.024	.024	3.12	.024
WL1/Fish Use	MWFUDS	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Livestock	MAUMS	6.81	6.81	6.81	6.70	6.90	6.81	6.81	6.70	6.81
Fuelwood	MCORDS	.066	.066	.066	.066	.073	.066	.066	-	.066
Xmas Trees	MTREES	.005	.005	.005	.005	.005	.005	.005	-	.005
Sediment Yield	MTONS									
Soil Improvement	ACRES	.087	.087	.087	.087	.979	.087	.087	.531	.087
Minerals	CASES	4.81	4.81	4.81	4.24	5.44	4.81	4.81	4.81	4.81


4-390
HAYSTACK
WILD HORSE RANGE
The Mahoganies
Haystack Mountain
Rough Mountain
Jenneman Peak
Cold Springs Mountain
TWIN MONUMENTS
Delong Ridge
Mountain City
Merritt Mountain
Yankee Bill Summit
Wild Horse Crossing
Poorman Peak
Island Mountain
Tennessee Mountain
Waterloo Summit
Sunflower Reservoir
Point Rock
Haystack Creek
R. 54½ E.
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA HAYSTACK, #390 - 24,280 ACRES

1. Description

The Haystack Roadless Area is located on the southeast side of the Mountain City Ranger District. This unit is approximately 60 air miles north of Elko, Nevada. Primary access is provided by the good stnadard Haystack/Allegheny road on ;the north and by the surfaced State Highway 225 on the south side. Numerous low standard, generally 4x4 roads provide additional access from the higher standard main roads listed above. Public access is only restricted at a few locations of this unit due to lack of rights-of-way through private land.

Topography is generally rolling hills with a few areas that are steep and semi-rugged. elevations vary from a low of approximately 5,700 feet to over 7,500 feet above sea level. Several perennial streams exist with a very limited native trout fishery. One small finger of Wildhorse Reservoir extneds onto National Forest lands at Poorman Creek. Air quality is excellent. Soils are generally shallow and moderately developed. Predominant wildlife species are: mule deer, coyote, badger, beaver, bobcat, sage grouse, and Hungarian and chukar partridge. This unit contributes a small portion to the volume of the water in the East Fork of the owyhee River.

Rock types are primarily Tertiary rhyolites and tuffs.

Predominant vegetation is a sagebrush/grass type. Aspen stands are small and scattered. Nearly all major drainages contain a narrow band of riparian vegetation consisting of aspen, mountain birch, small meadow vegetation, and other water-sensitive plants. Numerous springs, seeps, and small meadows occur throughout the district. This unit is listed as part of the Intermountain sagebrush/wheatgrass-bluegrass ecosystem (3130-44).

The primary current uses are livestock grazing (cattle - 4,395 AUM's) on parts of three cattle allotments; dispersed recreation for deer and game birds; and mining claims and exploration. Fence structures and water developments are abundant and common. The unit's appearance is that of rolling sagebrush/grass covered hills with a steep, semi-rugged drop into the Owyhee River on the southwest side.

The chief attraction is dispersed motorized recreation hunting for deer and game birds. Annual recreation use is estimated at 2,100 RVD's.

2. Capability

Extensive mining activity has occurred throughout this unit and nearly all of it is presently staked with mining claims. Total disturbance by mining, however, is very small, with most roads and drill pads reclaimed.

The natural appearance and integrity of the area is low because of numerous improvements and unimproved roads.

The opportunities for solitude and primitive recreation are low due to the ease of access and open terrain. There are no special challenging experiences. There are no special features, threatened or endangered plant and animal species, or areas of special historical or scientific study opportunities. An exception for possible study is the presence of petrified wood at a few sites on the north side of the unit.

3. Availability

Active exploration and mining areas are presently small intotal acreage. Overall mining potential is high, however. There is moderate potential for the development of geothermal resources. The east and northern parts of the unit are heavily staked with mining claims.

The USGS lists this area as habing a high mineral potential, expecially for uranium. Lead and silver may occur at one prospect within the unit. Oil and gas potential is unknown.

Motorized and nonmotorized recreation use for deer and bird hunting is presently heavy, with a moderate to high potential for increased activity of this nature.

This unit lies within one of the more important deer hunting areas in the state. All portions are used by summering deer and for spring/fall range. The northeast quarter is part of important deer winter range. The potential to imprve summer deer range is low, since it is generally already in good to excellent condition. The potential to increase deer winter range is high but would be quite costly. The potential to improve species diversity is low.

Watershed value is low except during spring runoff, with this unit contributing an important wateer flow to Wildhorse Reservoir. Present watershed condition is good with the exception of small headcut areas scattered overr the unit. The ptential to improve watershed conditions is generally low with the exception of small drop structures to stop headcutting in a few select areas.

Livestock operations consist of cattle with the potential to increase cattle numbers listed as low due to shallow soils. All livestock operations, are managed under approved management plans. Forage production is fair and condition is generally good to excellent with a few exceptions primarily due to stands of cheatgrass.

Commercial timber sales are unfeasible, with only a small potential to increase production (firewood).

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are known to be present.

Authorized land uses include grazing, mining claims, and past very small scale mineral extraction. The potential for increased land use is high for minerals.

Fire potential is moderate to high due to the nature of the fuels and heavy recreation use. Insects and disease are not problems in this unit.

4. Need

The adjacent Jarbide Wilderness is located approximately 15 air miles away at the closest point. The nearest populaiton centers and approximate road distances are: Elko, Nevada, 60 miles; Twin Falls, Idaho, 106 miles; and Boise, Idaho, 156 miles.

During the RARE II process, local opposition was expressed with high sentiment to keep this unit as a non-wilderness area. Nonlocal opinion moderately favored non-wilderness designation. The area was allocated to non-wilderness.

This wheatgrass/bluegrass ecosystem is unusual and probably not represented in an existing wilderness area.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effor tshowed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation under the Preferred Alterantive (Alt. K).

Structural and nonstructural range and wildlife habitat improvement, as well as harvesting Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase substantially. The area has not been withdrawn from mineral entry. USGS lists this area as having a high mineral potential, especially for uranium. The unscheduled mining developments and increased ORV use will have the greatest impact on the amount of wilderness available for future consideration. The area has an extensive network of unimproved roads. This, coupled with unscheduled mining developments, remove the area from future consideration as wilderness.

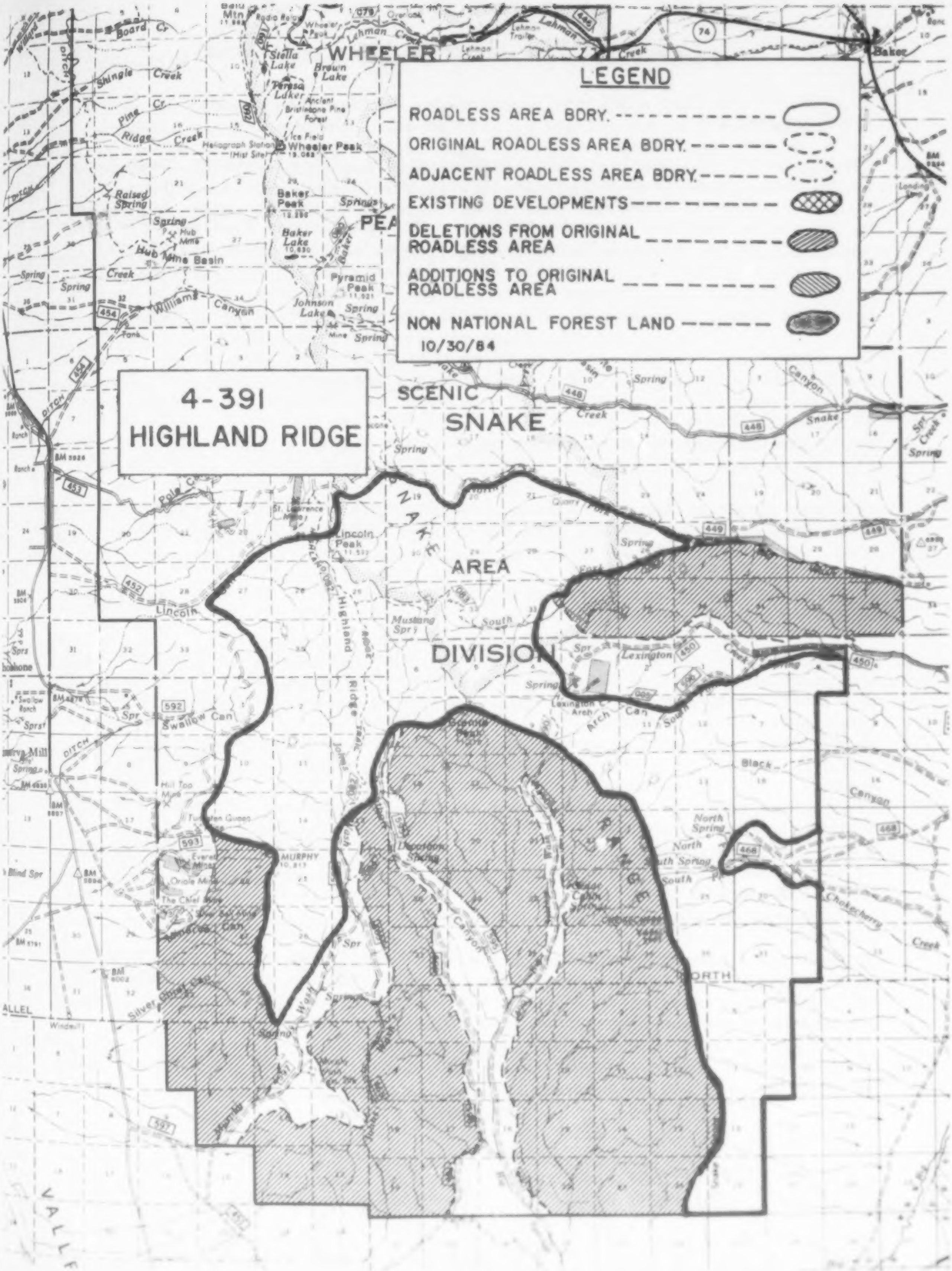
TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 390 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	24280	24280	24280			24280	24280		24280
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/Wl/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				24280					
All high except Lvstk									
All high except WL					24280				
All moderate									
Wilderness								24280	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will remain at current level. Same as J	Same as A	Same as A	Management will be at a low level. Same as J	Management will emphasize all but wildlife. Same as J	Same as A	Same as A	Integrity and naturalness are rated low due to extensive improvements and road networks.	Same as A
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is low.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation is same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 390 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	24,280	-
Dispersed Rec	MRVDS	-	-	-	-	-	-	-	3.14	-
NONWILDERNESS	ACRES	24,280	24,280	24,280	24,280	24,280	24,280	24,280	-	24,280
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	2.82	2.82	2.82	2.82	3.14	2.82	2.82	-	2.82
Wildlife Nonstructural Habitat Improv	ACRES	.02	.02	.02	.02	2.77	.02	.02	2.77	.02
WL/Fish Use	MWFUDS	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Livestock	MAUMS	6.08	6.08	6.08	5.97	6.15	6.08	6.08	5.97	6.08
Fuelwood	MCORDS	-	-	-	-	.04	-	-	-	-
Xmas Trees	MTREES	.06	.06	.06	.06	.02	.06	.06	-	.06
Sediment Yield	MTONS									
Soil Improvement	ACRES	.08	.08	.08	.08	.87	.08	.08	.47	.08
Minerals	CASES	4.29	4.29	4.29	2.44	3.87	4.29	4.29	4.29	4.29


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-391
HIGHLAND RIDGE
WHEELER PEAK
SCENIC AREA
SNAKE DIVISION
SNAKE RANGE
Wheeler Peak
Baker Peak
Baker Lake
Pyramid Peak
Johnson Lake
Stella Lake
Brown Lake
Teresa Lake
Lincoln Peak
Highland Ridge
Mustang Spr
Lexington Arch
Lexington Can
Swallow Can
Murphy
Decathon Spring
Black Canyon
Chokecherry Creek
Snake Creek
Lehman Creek
Baker
Williams Canyon
Hub Mine Basin
Raised Spring
Shingle Creek
Pine Creek
Pole Can
Silver Creek Can
VALLEY
74

ROADLESS AREA HIGHLAND RIDGE, #391 - 33,184 ACRES

1. Description

The Highland Ridge Roadless Area includes a part of the southern Snake Range in the Humboldt National Forest in eastern White Pine County, Nevada. The rugged northerly trending Snake Range is bounded on the west by Spring Valley and on the east by Snake Valley. The Bristlecone Roadless Area lies just north of the Highland Ridge Roadless Area. Lincoln Peak (11,597 ft) is the highest point in the Highland Ridge Roadless Area; the lowest altitude is 6,200 feet at the southwest border of the roadless area, near the base of the Snake Range. Cliffs and steep slopes are common features of the area.

The Utah State boundary is three miles east of the roadless area. Baker, Nevada, and Garrison, Utah, are the only permanent communities in the immediate area. The nearest main population centers are Ely, Nevada, about 44 miles northwest, and Delta, Utah, about 85 miles northeast. U.S. Highway 50 crosses the Snake Range at Sacramento Pass about 17 miles north of the Highland Ridge Roadless Area, and U.S. Highway 93 is about 10 miles west. Nevada Highway 487 and Utah Highway 21 are about six miles distant from the roadless area, on the east side. From these major highways, numerous dirt roads pass near the roadless area boundary. Some trails are present in the area, but receive only limited use.

Rock types are primarily Paleozoic sediments. Soils are very rocky and exhibit a moderate erosion potential.

This area lies within the intermountain sagebrush pinyon-juniper woodland ecosystem (3130-021). Vegetation varies with the elevation. Pinyon-pine and juniper dominate the lower slopes. Aspen, mountain mahogany, white and Douglas fir, limber pine, and bristlecone pine are found in the upper elevations. Sagebrush/grass types are located throughout the area. The primary current uses of this area are livestock grazing (1,055 Animal Unit Months) and recreation (5,000 Recreation Visitor Days). Other resource uses which occur in the area include wildlife habitat, firewood and post and pole removal, and mining activity. There are 38,000 acres within the area that are potentially mineralized. Major deposits include tungsten, silver, lead, copper, and zinc. Approximately 23 square miles of oil and gas leases are present along the perimeter of the area. Seismic activity has not crossed into the unit.

Approximately one-third of the Wheeler Peak Scenic Area is in this roadless area. Hunting and forest product use are attractions. A special attraction to the area is Lexington Arch, estimated to be six stories high. Rocky Mountain bighorn sheep have been reintroduced and can be seen.

This area is large, mostly unmodified by man. A few localities show evidence of past mining activity.

2. Capability

There are no topographic features which would provide a definable boundary for a potential wilderness. The natural integrity and appearance of the area is rated as very high due to the lack of man-made improvements and activities, and the sometimes spectacular terrain. Impacts of man that cannot be excluded are areas of vegetative manipulation, mined areas, and the presence of nonindigenous plants.

Opportunities for solitude and primitive recreation are both high due to the area's remoteness.

Special features in the area include Lexington Arch, Rocky Mountain bighorn sheep, and a wild horse territory on the south end.

No Federally listed threatened or endangered plant or animal species are known to occur in the area.

Several boundary modifications have been made in this area to exclude acreage of low wilderness quality or that have significant resource conflicts. Areas were excluded due to numerous range improvements, mineral activity, and vegetation manipulation identified in those areas. An area encompassing the Wheeler Peak Scenic Area was deleted from this roadless area and incorporated in the Bristlecone Roadless Area recommendation.

3. Availability

The majority of recreation use occurs as dispersed activities. These include hunting, sightseeing, hiking, and ORV use. There are no developed recreation sites. The potential for additional dispersed activities is low to moderate because of the area's remoteness.

Overall watershed value is high with little potential for watershed improvement due to the high cost per benefit gained.

This area is primarily grazed by domestic sheep, with forage production generally fair to good. Several range improvement fences and water developments are located in the area. Some type conversions have been accomplished to benefit wildlife and livestock.

The area contains several commercial Christmas tree cutting areas and pinenut gathering areas along the east and south sides. Cutting of juniper posts, aspen poles, and fuelwood occurs periodically throughout the unit. There are opportunities to maintain and possibly increase these activities to a small extent.

The west side of this unit is rated high in prospective potential for base metals. Lexington Creek is rated moderate. Tungsten is the primary metal mined, although other metals are present too, indicating a potential for increased mining activity. Oil and gas potential is low.

Archaeological sites, including petroglyphs and lithic scatters, occur in the area. Present air quality is high. There are no special use authorizations at present, and there is no private land within the area.

READEX FICHE

Fire hazard is high in this area, although no major fires have occurred recently. Insects and disease are not a problem.

4. Need

This roadless area lies approximately 44 miles southeast of Ely. The nearest existing wilderness area lies approximately 210 miles north of the area.

The Intermountain sagebrush/pinyon-juniper woodland ecosystem is common throughout Nevada; thus, wilderness classification of the Highland Ridge Roadless Area to protect this vegetation type is not needed.

This area was originally inventoried in RARE I and identified for further wilderness study at that time. During the RARE II process, local public sentiment strongly favored non-wilderness management. Comments from the nonlocal public moderately favored wilderness classification. The area was given a further planning classification.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the unit planning process other than one comment expressing an opinion that the area may have gas and oil potential.

One major company has expressed interest in the area as an exploration target.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation under the Preferred Alternative (Alt. K), due to the moderate to high mineral potential identified throughout the area.

Structural and nonstructural range improvements, as well as harvesting woodland products, are part of the scheduled management prescribed for the area. ORV use is expected to increase only slightly. The area has not been withdrawn from mineral entry. Portions of the area have a high potential for minerals; other portions are rated as moderate. Based on this, there is potential for increased mining activity. Mining developments will have the greatest impact on the amount of wilderness available for future consideration.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 391 ROADLESS AREA

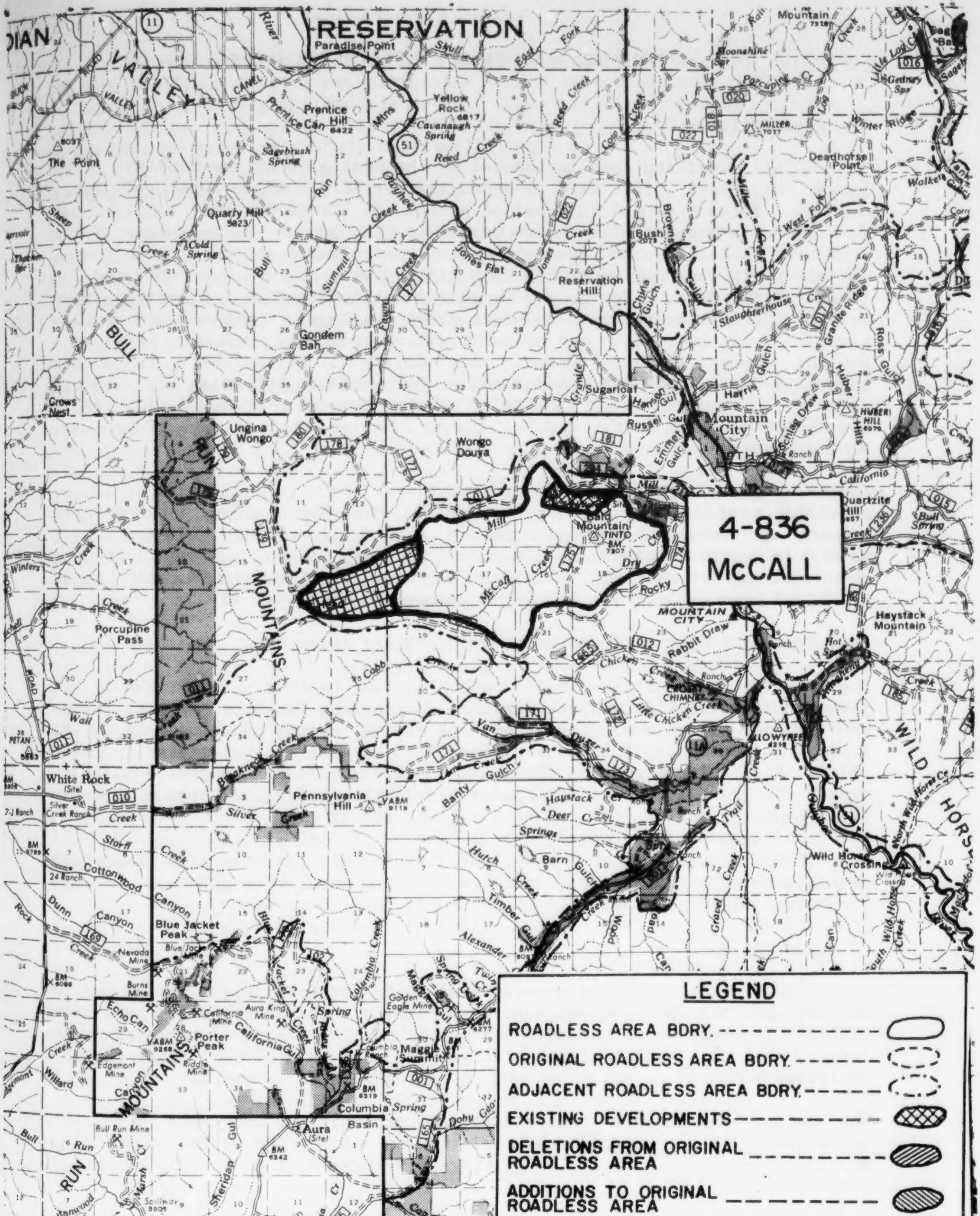
MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	34800	34800		67984		34800			33605
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)					67984				
All low			34800						
All high except Lvstk									
All high except WL									
All moderate							67984		
Wilderness	33184	33184	33184			33184		67984	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 391 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	49% of area is recommended for wilderness. Integrity and naturalness Same as J	Same as A	Same as A	No Wilderness recommendation managed at current level. Integrity may be reduced.	Management emphasis on non-commodity resources. Integrity may be impacted.	Same as A	Management slightly higher than current level. Same as E	Opportunities for integrity and naturalness are high due to the area's remoteness.	Same as E
SOLITUDE	Same as J	Same as J	Same as J	Solitude may be reduced.	Solitude may be impacted.	Same as J	Same as E	Opportunities for solitude are considered high.	Same as E
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as solitude.	Same as solitude.	Same as J	Same as E	Same as solitude.	Same as E
CHALLENGING EXPERIENCES	No impact	Same as A	Same as J	Same as A	Same as A	Same as A	Same as A	Opportunities exist on the area.	Same as A
SPECIAL FEATURES	No impact	Same as A	Same as J	Same as A	Same as A	Same as A	Same as A	Wheeler Peak scenic area; Lexington arch, bighorn sheep.	Same as A

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 391 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	33,184	33,184	33,184	-	-	33,184	-	67,984	-
Dispersed Rec.	MRVDS	2.80	2.80	2.80	-	-	2.80	-	5.72	-
NONWILDERNESS	ACRES	34,800	34,800	34,800	67,984	67,984	34,800	67,984	-	67,984
Dispersed Recreation										
Non-Motorized	MRVDS	.67	.67	.67	1.3	1.54	.67	1.43	-	1.3
Motorized	MRVDS	1.99	1.99	1.99	3.90	3.91	1.99	4.19	-	3.90
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	1.00	-	-	-	-
WL/Fish Use	MWFUDS	4.42	4.42	4.45	4.84	3.40	4.42	3.40	4.86	4.84
Livestock	MAUMS	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.06	2.07
Fuelwood	MCORDS	.04	.04	.04	.08	.2	.04	.20	-	.08
Xmas Trees	MTREES	.01	.01	.01	.02	.02	.01	.02	-	.02
Sediment Yield	MTONS									
Soil Improvement	ACRES	.04	.04	.04	.08	.19	.04	.14	.14	.08
Minerals	CASES	1.74	1.74	3.3	3.41	3.98	1.74	2.55	3.41	3.41


4-836
McCALL
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
RESERVATION
Paradise Point
Prentice Hill 6422
Yellow Rock 6817
Cavanaugh Spring
The Point
Quarry Hill 5823
Sagebrush Spring
Jones Flat
Reservation Hill
Gondem Bah
Sugarloaf
Crows Nest
Ungina Wongo
Wongo Douya
Bald Mountain
TINTO
Mountain City
MOUNTAIN CITY
Rabbit Draw
Porcupine Pass
MOUNTAINS
White Rock (Site)
Pennsylvania Hill
Blue Jacket Peak
Porter Peak
Columbia Spring
Aura (Site)
Bull Run Reservoir
Haystack Mountain
WILD HORSE
Wild Horse Crossing
Deadhorse Point
Winter Ridge
Moonshine Spr
Mountain
McCall Creek
Mill Creek
Rocky
Chicken Creek
Little Chicken Creek
Van Duzer
Maggie Summit
Spillway
Landing Strip
Edgemont Mine
Riddle Mine
California Mine
Aura King Mine
Golden Eagle Mine
Nevada Mine
Burns Mine
BULL RUN
VALLEY
Harris Gulch
Huber Hills
Quartzite Hill
Bull Spring
Hot Spring
Slaughterhouse
Granite Ridge
Ross Gulch
China Gulch
Russel Gulch
Emmet Gulch
Silver Creek Ranch
Cottonwood
Dunn Canyon
Storff
Echo Can
California Gul
Barn
Hutch Creek
Timber
Alexander
Gravel Creek
Wood

ROADLESS AREA MCCALL, #836 - 5,032 Acres

1. Description

The McCall Roadless Area is located on the west side of the Mountain City Ranger District. The unit is approximately 70 air miles north of Elko, Nevada. Primary access is provided by two low standard roads: Mill Creek to the north and the Wall/Indian Creeks to the west. Four-by-four roads provide additional access from the access roads listed above. Public access for the north could be a problem as a right-of-way has not been obtained for the Rio Tinto Mine. Topography is gently rolling to flat. Elevations vary from 6,500 feet to nearly 8,000 feet above sea level. Streams are small, generally intermittent, and seasonally vary greatly in volume. Fisheries habitat occurs in McCall Creek. Air quality is excellent. Soils are generally deep and well developed. Soil erosion potential is low to moderate, with only small amounts of erosion present. Predominant wildlife species are: mule deer, coyote, badger, beaver, bobcat, sage grouse, and blue grouse.

Sagebrush/grass vegetation is predominant over the more gentle sloped areas, providing good quantity and quality forage. Most north slopes support small patches of subalpine fir and aspen. Aspen/willow stands are found near waterways and in moist areas. Numerous springs, seeps, and small meadows occur throughout the area. This unit lies within the intermountain sagebrush/wheatgrass-bluegrass, sagebrush ecosystem (3130-44, 40).

Rock types are Paleozoic sediments and Tertiary andesites.

The primary current uses are livestock grazing (cattle - 1,903 AUM's) on parts of 3 cattle allotments; dispersed recreation for deer and game birds; and mining claims and exploration. A minimal amount of fence and water troughs are present. The western portion of the area is not presently under intensive livestock grazing management. The unit's appearance is that of gently rolling hills and flat expanses. Subalpine fir and aspen are common throughout the unit.

The chief attractions are the aspen/subalpine fir patches and dispersed recreation hunting for deer, sage grouse, and blue grouse. Annual recreation use is estimated to be 600 AUM's.

2. Capability

Extensive mining activity has occurred at Rio Tinto adjacent to the north eastern portion of the unit. In addition, the west side has been extensively roaded with numerous drill pads present. Both of these areas no longer meet the roadless area criteria and will be excluded from further analysis.

The natural appearance and integrity of the unit are moderate with the exception of the east side, which is low because of the extensive mining activity.

The opportunity for solitude is only moderate because of the open terrain, and for low for primitive recreation due to the ease of access. There are no special challenging experiences. There are no special features, threatened or endangered plant and animal species, or areas of special historical or scientific study opportunities.

3. Availability

Primary recreation use consists of motorized recreation use for deer and bird hunting. All portions are used by summering deer; spring and fall use also occurs. No winter range is present. The potential to improve summer deer range is low, since it is generally already in good to excellent condition. The potential to improve game bird diversity is moderate by reintroducing historic species back into this area.

Watershed value is high since this unit contributes to the Owyhee River which is used for irrigation on the Duck Valley Indian Reservation. Present watershed condition is good to excellent. The potential to improve water shed conditions is low, with the exception of small drop structures to stop headcutting in some areas.

Livestock operations consist of cattle grazing. The potential to increase cattle numbers is low to moderate because the area is close to capacity. Livestock grazing is managed under approved allotment management plans except for the western portion of the unit which is scheduled for allotment planning in 1985. Forage production and condition is good to excellent.

Commercial timber production is unfeasible, but firewood production could be increased considerably if better access and higher demand occurred.

Active exploration and mining areas are presently confined to the northeastern and western portions of the unit. Overall mining potential is high. The area is heavily staked with mining claims. The USGS lists this area as having high mineral potential. Copper, molybdenum, gold, silver, and uranium occur in mines and prospects adjacent to or within this area. Mountain City Copper (Rio Tinto), which produced over $21 million in copper lies just north of the unit. Extensive surface prospecting has practically eliminated the possibility of discovery of an outcropping copper mine similar to Mountain City Copper, and future potential will have to come through work on the complex geology of the area. Carlin-type disseminated gold ore bodies are a distinct possibility as geologic conditions are favorable.

Numerous early American archaeological sites occur within and immediately adjacent to this unit. No unusual or significant sites are know to be present.

Authorized land uses include grazing and mining claims. The potential for increased land use is high for minerals.

Fire potential varies from moderate in the low elevations adjacent to Mountain City to low in the upper elevations.

Insects and disease are not problems in this unit. Access from the northeast across the Rio Tinto Mine could be a problem, but it could be bypassed if necessary.

4. Need

The adjacent Jarbidge Wilderness is located approximately 30 air miles to the east. The nearest population centers and approximate road distances are: Elko, Nevada, 85 miles; Twin Falls, Idaho, 130 miles; and Boise, Idaho, 150 miles.

During the RARE II process, no local interest or support occurred for this proposal. Generally, both local and nonlocal opinion was againast adding this area to the wilderness system. The area was allocated to nonwilderness.

This portion of the sagebrush/steppe ecosystem is represented in the Jarbidge Wilderness and is present in other areas of Nevada. Wilderness designation is not needed to represent this type of ecosystem.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office, and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation under the Preferred Alternative (Alt. K).

Structural range improvements, nonstructural range and wildlife improvements, as well as harvesting Christmas trees, are part of the scheduled management prescribed for the area. ORV use is expected to increase. The area has not been withdrawn from mineral entry. Active exploration and mining areas are presently confined to the northeastern and western portion of the unit. Some of these areas have been deleted. Overall mining potential is high. Unscheduled mining developments will have the greatest impact on the amount of wilderness available for future consideration. Due to the small size of the area, none of it may be available for wilderness consideration in the future.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 836 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVE (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation	5032	5032	5032			5032	5032		5032
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDsp/Wood Prod/ Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low				5032					
All high except Lvstk									
All high except WL					5032				
All moderate									
Wilderness								5032	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Management will continue at current level. Integrity on entire area will be reduced.	Same as A	Same as A	Low management emphasis. Integrity may be reduced.	Management emphasis on all resources except wildlife. Same as A	Same as A	Same as A	Integrity and naturalness range from moderate to low due to extensive mining.	Same as A
SOLITUDE	Solitude will be reduced.	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A	Solitude is moderate due to open terrain.	Same as A
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Primitive recreation is low.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 836 ROADLESS AREA

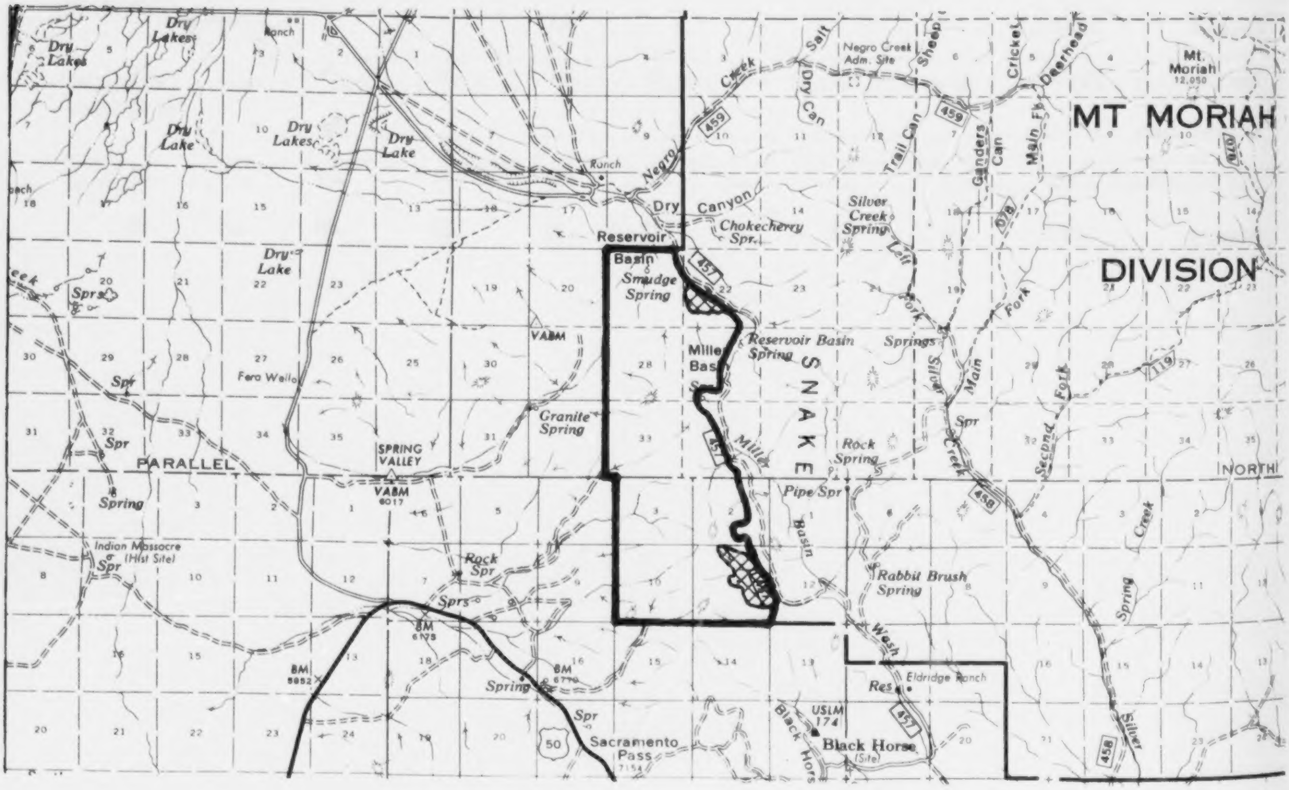
ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	-	-	-	-	-	-	-	5,032	-
Dispersed Rec	MRVDS	-	-	-	-	-	-	-	.64	-
NONWILDERNESS	ACRES	5,032	5,032	5,032	5,032	5,032	5,032	5,032	-	5,032
Dispersed Recreation										
Non-Motorized	MRVDS	-	-	-	-	-	-	-	-	-
Motorized	MRVDS	.58	.58	.58	.58	.64	.58	.58	-	.58
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	.56	-	-	.56	-
WL/Fish Use	MWFUDS	.27	.27	.27	.27	.27	.27	.27	.27	.27
Livestock	MAUMS	1.24	1.24	1.24	1.22	.126	1.22	1.22	1.22	1.22
Fuelwood	MCORDS	-	-	-	-	.01	-	-	-	-
Xmas Trees	MTREES	.01	.01	.01	.01	.01	.01	.01	-	.01
Sediment Yield	MTONS									
Soil Improvement	ACRES	.01	.01	.01	.01	.05	.01	.01	.10	.01
Minerals	CASES	.88	.88	.88	.77	.99	.88	.88	.88	.88

ROADLESS AREA GRANITE SPRINGS, #837 - 4,805 ACRES

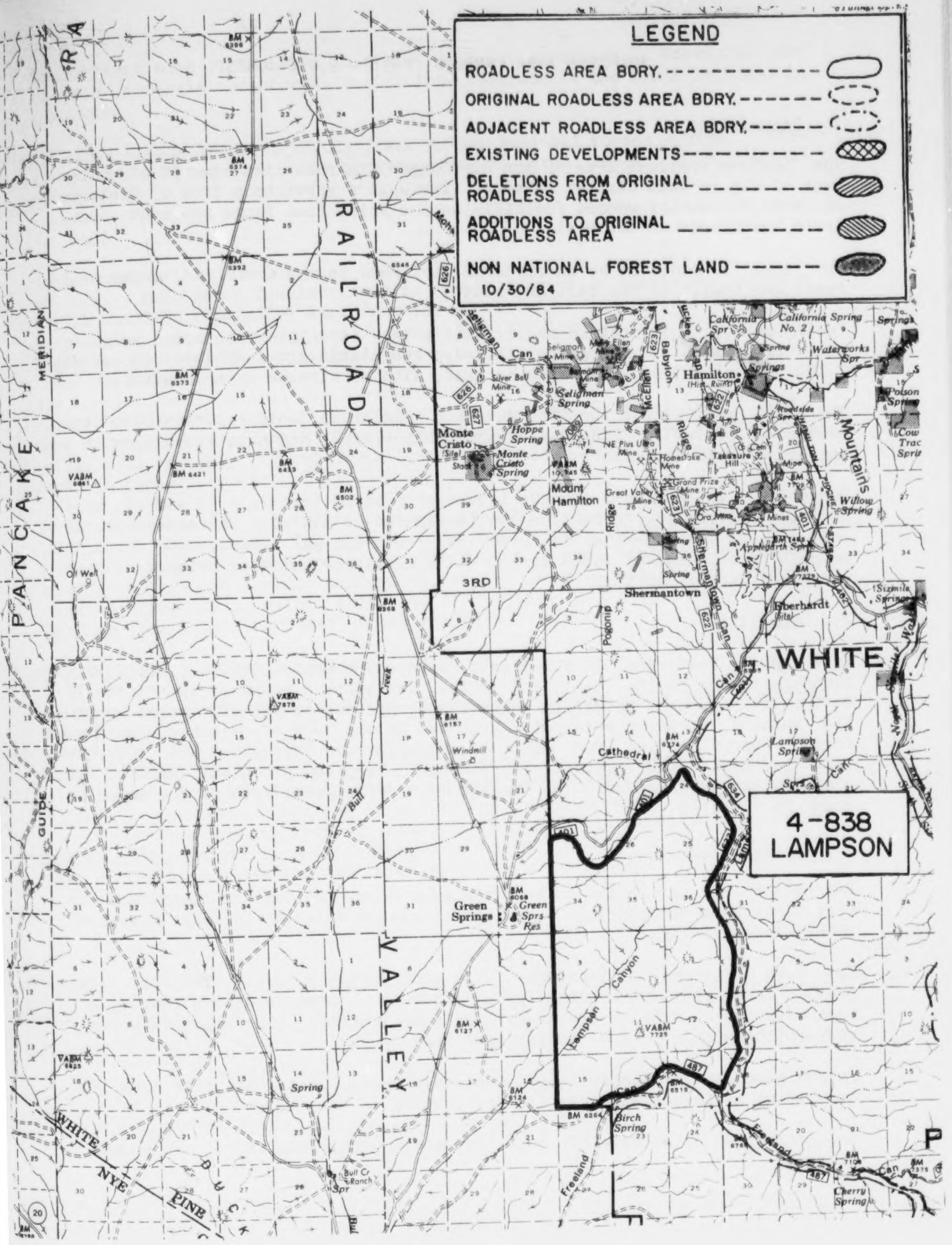
1. Description

The Granite Springs Roadless Area is located approximately 30 miles east of Ely, Nevada, in east-central Nevada and is entirely in White Pine County. It is in the southwest corner of the Mt. Moriah Division. This unit is on the west slope of the northern Snake Range, which extends along the eastern edge of Nevada in the basin and range physiographic province. The elongate north-trending range is bounded on the west by Spring Valley and on the east by Snake Valley.

Certain localities show evidence of past mining activity. While the area is isolated, highways, ranches, and farms can be seen in the valleys from most points. Approximately 250 acres of pinyon-juniper were chained in 1978. Elimination of this project from the area has resulted in a remaining area of less than 5,000 acres. It no longer meets established wilderness criteria and further wilderness analysis will not be conducted.



Dry Lakes
Dry Lakes
Ranch
Dry Lake
Dry Lakes
Dry Lake
Ranch
Negro
Creek
Salt
Negro Creek Adm. Site
Dry Can
Sheep
Trail Can
Cricket
Deerhead
Ganders Can
Main Fk
Mt. Moriah 12,050
MT MORIAH
DIVISION
Dry
Canyon
Chokecherry Spr.
Silver Creek Spring
Left Fork
Reservoir
Basin
Smudge Spring
Dry Lake
Sprs
Reservoir Basin Spring
Springs
Main Fork
Second Fork
VABM
Miller Basin
SNAKE
Fero Wells
Granite Spring
Spr
Spr
Spring
PARALLEL
SPRING VALLEY
VABM 6017
Rock Spring
Pipe Spr
Basin
Spr
Creek
Spring
Creek
NORTH
Indian Massacre (Hist Site)
Spr
Rock Spr
Sprs
Rabbit Brush Spring
Wash
BM 6775
BM 5852
BM 6770
Spring
Spr
Sacramento Pass 7154
USLM 174
Black Horse (Site)
Black Hors
Res
Eldridge Ranch
Silver
459
457
458
50
119


LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84
4-838
LAMPSON
RAILROAD
VALLEY
PANCAKE
WHITE
Mountains
Hamilton
Shermantown
Eberhardt
Monte Cristo
Mount Hamilton
Cathedral
Green Springs
Lampson Canyon
Birch Spring
Lampson Spring
Treasure Hill
Cherry Spring
WHITE PINE
NYE
DUCK
GUIDE MERIDIAN
3RD

ROADLESS AREA LAMPSON, #838 - 9,058 ACRES

1. Description

The Lampson Roadless Area on the Ely Ranger District lies some 35 air miles west of Ely in east central Nevada. The unit's appearance from a distance is that of heavily wooded foothills on the White Pine Range and open sagebrush benchlands to the west.

The area is accessed by an improved dirt road to the north and unimproved roads and trails to the east and south.

Geologically, the area is mostly sedimentary in origin with some volcanic activity evident. Topography includes benchlands and foothills to about 7,700 feet elevation. The area is arid, with no streams or meadowlands.

The unit lies within the intermountain sagebrush/juniper-pinyon woodland ecosystem (3130-21). Pinyon-pine and juniper trees dominate the area with a sagebrush grass understory.

Currently, primary uses include livestock grazing (cattle - 32 AUM's), wild horses, and mimited recreation use (estimated 50 RVD's). Hardrock mineral and oil and gas potential is rated low. Oil and gas leases cover about 20 percent of the area of 2,852 acres. The area provides deer primary winter range ond chukar habitat.

2. Capability

Topographic boudaries do not exist; dirt roads could provide a definable boundary to the north, east, and south. The western boundary is not really definable. Natural integrity is rate moderate due to the wild horse herd. The natural appearance is rated high due to the lack of visible improvements. Opportunities for solitude and primitive recreation are moderate only because of the vegetative screening. Very low potential exists for challenging experiences. No threatened or endangered species are known to occur in the area.

3. Availability

Recreation use is limited to some big game hunting. Winter sports use is very limited to nonexistent. Few opportunities exist to increase dispersed recreation activity.

The area is grazed by livextock, with poor forage values. The unit does provide some important habitat for wild horses. Some livestock fencing has been developed within the area. Potential exists for vegetative type conversions within pinyon-juniper woodlands.

Forest products include fuelwood, Christmas trees, posts, and pine nuts, but harvesting of these resources is very limited.

Archaeological sites have not been documented within the area, but probably exist.

The northern edge of the area is staked with mining claims. Potential for economic minerals occurrences varies from moderate in the south to high in the north.

All lands within the area boundary are in the National Forest system. Fire potential is moderate to high throughout the area based on historical records.

4. Need

The nearest existing wilderness area, Jarbidge, lies about 160 miles north of Ely. The Lamson Roadless Area is remote from major population centers; Ely is about 60 road miles away from the area. Since the ecosystem type is common throughout Nevada, wilderness classification of this area is not needed to protect this vegetative type.

The Lampson Roadless Area was inventoried in RARE I but not identified for further wilderness study at that time. During RARE II, local public sentiment strongly favored non-wilderness management. Comment from the nonlocal public also strongly favored non-wilderness designation. The area was allocated to non-wilderness.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation under the Preferred Alternative (Alt. K).

A small amount of range structural and nonstructural improvements, as well as harvesting woodland products are part of the scheduled management prescribed for the area. ORV use is not expected to increase. The area is not withdrawn from mineral entry. Potential for economic minerals occurrences varies from moderate in the south to high in the north. It is likely that the northern portion of the area will not be available for wilderness consideration in the future.

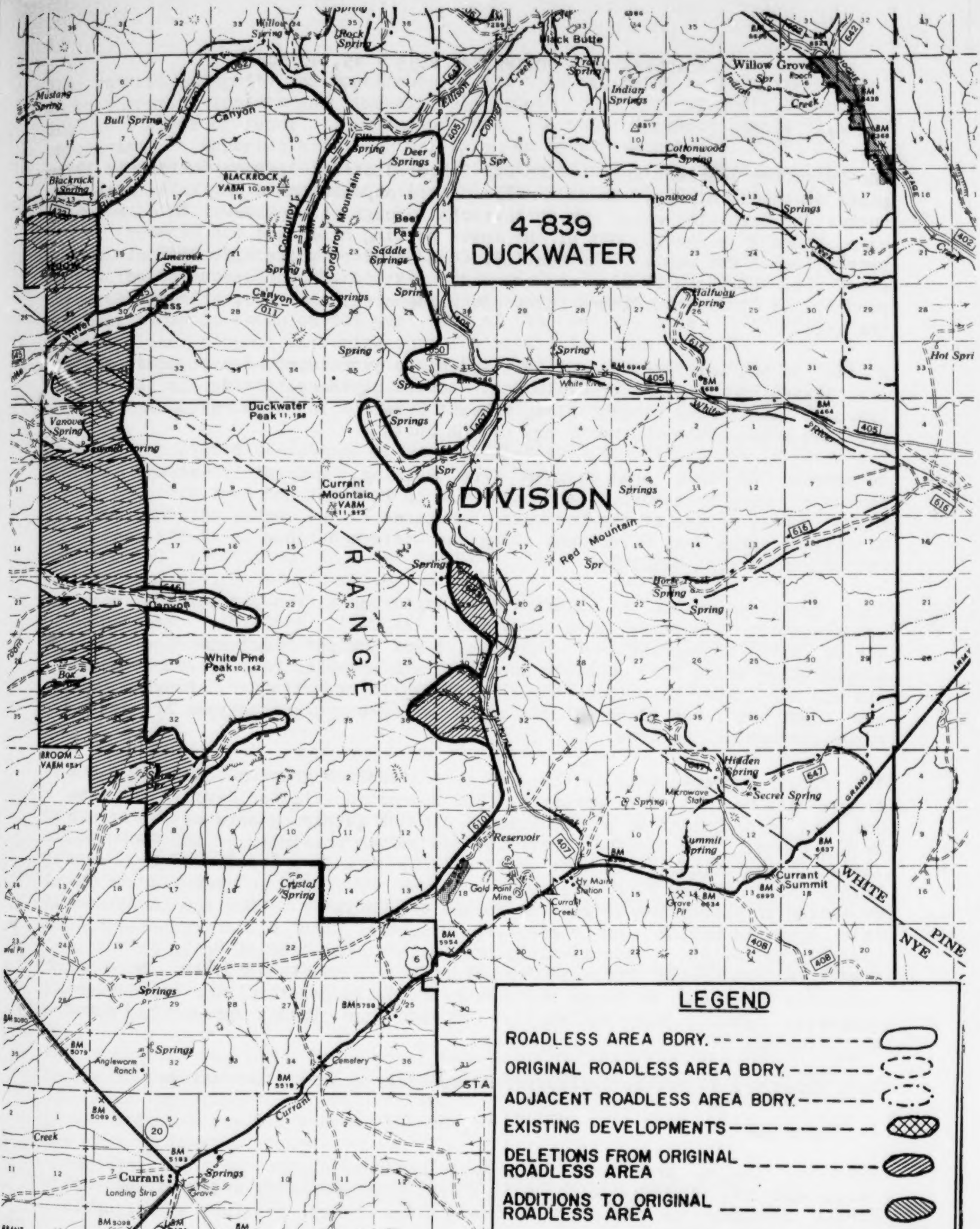
TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 838 ROADLESS AREA

MANAGEMENT PRESCRIPTIONS (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		9058				9058			9058
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
Mot Dsp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)					9058				
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low			9058	9058			9058		
All high except Lvstk									
All high except WL									
All moderate									
Wilderness	9058							9058	

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Same as J	Maintain current management. Same as J	Management at a lower level than present. Same as J	Same as D	Management will emphasize non-commodities. Same as J	Same as C	Same as D	Integrity considered moderate due to the wild-horse herd. Naturalness is high.	Same as C
SOLITUDE	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Solitude is moderate due to the lack of vegetative screening.	Same as J
PRIMITIVE RECREATION	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as solitude.	Same as J
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	None exist	Same as J

TABLE C—ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 838 ROADLESS AREA

ACTIVITY/OUTPUT (Average Annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	9,058	-	-	-	-	-	-	9,058	-
Dispersed Rec	MRVDS	.3	-	-	-	-	-	-	.3	-
NONWILDERNESS	ACRES	-	9,058	9,058	9,058	9,058	9,058	9,058	-	9,058
Dispersed Recreation										
Non-Motorized	MRVDS	-	.01	.01	.01	.01	.01	.01	-	.01
Motorized	MRVDS	-	.29	.29	.29	.29	.29	.29	-	.29
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	M-FUDS	.18	.18	.2	.2	.18	.18	.2	.18	.18
Livestock	MAUMS	.29	.30	.29	.29	.30	.30	.29	.29	.30
Fuelwood	MCORDS	-	.02	.02	.02	.02	.02	.02	-	.02
Xmas Trees	MTREES	-	.002	.002	.002	.002	.002	.002	-	.002
Sediment Yield	MTONS									
Soil Improvement	ACRES	.01	.01	.02	.02	.03	.01	.02	.01	.01
Minerals	CASES	1.23	1.23	1.02	1.02	1.33	1.23	1.02	1.23	1.23


4-839
DUCKWATER
DIVISION
RANGE
Willow Spring
Rock Spring
Black Butte
Trail Spring
Willow Grove
Indian Springs
Indian Creek
Mustang Spring
Bull Spring
Canyon
Deer Springs
Ellison Creek
Cottonwood Spring
Blackrock Spring
BLACKROCK VABM 10,083
Corduroy Canyon
Corduroy Mountain
Beer Pass
Saddle Springs
Limerock Spring
Halfway Spring
Hot Spri
White River
Duckwater Peak 11,188
Vanover Spring
Currant Mountain VABM 11,513
Springs
Red Mountain
Horse Tail Spring
White Pine Peak 10,142
Box Spring
BROOM VABM 6531
Hidden Spring
Secret Spring
Microwave Station
Reservoir
Summit Spring
Crystal Spring
Gold Point Mine
Hy Maint Station
Currant Creek
Gravel Pit
Currant Summit
WHITE PINE
NYE
GRAND
Angleworm Ranch
Cemetery
Currant
Landing Strip
Grave
Creek
LEGEND
ROADLESS AREA BDRY.
ORIGINAL ROADLESS AREA BDRY.
ADJACENT ROADLESS AREA BDRY.
EXISTING DEVELOPMENTS
DELETIONS FROM ORIGINAL ROADLESS AREA
ADDITIONS TO ORIGINAL ROADLESS AREA
NON NATIONAL FOREST LAND
10/30/84

ROADLESS AREA DUCKWATER, #839 - 45,140 ACRES

1. Description

The Duckwater Roadless Area on the Ely Ranger District lies approximately 30 miles southwest of Ely, Nevada. The unit's appearance is dominated by the Duckwater Mountains which run north-south through its center. This steep bare ridge juts sharply out of the lower rolling hills and can be seen for many miles to the west. The distinct cone shape of White Pine Peak at the south end of the unit also can be seen. Stands of bristlecone pine and populations of desert bighorn sheep and wild horses are major attractions in the area.

Access on the unit's south and west sides are by unimproved dirt roads that are located in most major drainages. Access on the east side is by the improved dirt road running along Currant Creek. The Corduroy Basin Road provides access into the north end of the unit.

Topography of this area changes from rolling, moderately steep hills dominated by pinyon-juniper and sagebrush on the west and east sides to the steep, rocky ridge of the Duckwater Mountains in the center of the unit. Elevations range from 6,200 feet along the western benches to 11,513 feet at the top of Currant Mountain.

This area lies within the Intermountain sagebrush/pinyon-juniper and sagebrush/western ponderosa pine ecosystems (3130-21, 3130-10). Vegetation varies with the elevation. Pinyon-pine and juniper dominate the lower slopes while white fir, mountain mahogany, and bristlecone pine are found on the mid and higher elevation slopes. Stringers of white fir, Douglas fir, and aspen are found along the drainages. Sagebrush/grass types are intermixed throughout the area.

The primary current uses in the area are livestock grazing (cattle - 2,001 Animal Unit Months), and recreation (300 Recreation Visitor Days). The area has been designated as a traditional pinenut gathering area by the Nevada Tribal Council and receives heavy use due to its proximity to the Duckwater Indian Reservation. The west half of the unit is a portion of the Monte Cristo Wild Horse Territory and receives moderate to heavy horse use depending on population levels and forage availability. USGS has identified this area as having low prospective potential for oil and gas and high mineral potential. Approximately one mile at the head of Broom Canyon is identified as having fluorspar in potentially mineable deposits. No other prospects are known, although there is prospective potential for molybdenum, tungsten, gold, and silver. Oil and gas leases presently cover approximately 50 percent of the area.

Rock types are Paleozoic sediments and Tertiary granitic intrusives.

2. Capability

Blackrock Canyon provides a topographic boundary on the north end of the unit, and dirt roads bound the east side. The presently unfenced National Forest boundary on the south and west sides do not provide a definable wilderness boundary.

The natural integrity and appearance of the area is rated as moderate due to past grazing impacts and mineral exploration. Evidence of man's impacts include 9 miles of fence, .5 miles of road, and non-indigenous plants (i.e. cheatgrass). Opportunities for solitude and primitive recreation are also rated as moderate because the nature of the topography tends to concentrate visitors. Limited mining activities and the presence of low-level aircraft also reduce solitude.

Several modifications have been made to the roadless area boundary. Two areas in the southeast quadrant were deleted due to improved roads missed during the original inventory. An alternative boundary that would delete a two-mile strip is shown on the west side of the roadless area. This area is a traditional pinenut gathering zone for native American Indians. Due to its proximity to the Duckwater Indian Reservation, the area receives heavy use during the pinenut gathering season. This alternative boundary would improve the management of the core area under a wilderness designation.

No Federally listed threatened or endangered plants or animals are known to occur in the area.

3. Availability

Recreational activities include deer and upland game bird hunting, backpacking and hiking, and some four-wheel drive use. There are opportunities to increase dispersed use through trail development.

Mule deer, desert bighorn, sage and blue grouse, and chukar are some of the wildlife species that inhabit the area. Potential habitat improvement projects include water developments along the west benches and the protection of meadow and riparian habitat along the north and east sides.

The area serves as a watershed for ranches in Railroad Valley and shows little potential for improvement.

Cattle use in the area is concentrated in Corduroy Basin and along the east side of the unit. Suitable range exists along the western benches but is presently not used. Water developments, pit tanks, and fences are located in suitable range throughout the unit. There is some potential to increase livestock forage through type conversions in pinyon-juniper and mountain big sagebrush types.

Some posts and fuelwood are harvested on the west side of the unit, but pinenuts are the main forest product removed from the area. There is a potential for a small increase in juniper post and fuelwood removal.

The potential for the occurrence of economic mineralization is high in the southwest and southern parts of the area. The rest of the area has moderate potential for economic mineralization. The southwest and southern sections of the unit are heavily staked with mining claims. The east central part of the area is lightly staked.

Archaeological sites are located adjacent to and within the area.

The fire hazard is high in the dense pinyon-juniper stands on the west benches.

4. Need

The Duckwater Roadless Area lies approximately 30 miles southwest of Ely, Nevada. The nearest existing wilderness area, Jarbidge, lies 180 miles north of the area.

The Intermountain sagebrush/pinyon-juniper and sagebrush/western ponderosa pine ecosystems are common throughout Nevada, but the small stands of bristlecone pine are unique. Although these pine stands are fairly well protected due to their inaccessible locations, wilderness classification would provide additional protection for these unusual trees.

During the RARE II process, local public sentiment strongly favored non-wilderness management. Nonlocal opinion moderately favored wilderness classification. The area was allocated to non-wilderness.

During 1983, updated map inventories and descriptions were made available to the public on request. This was accomplished through individual and group contacts, briefing sessions, and open houses at each Ranger's and Supervisor's Office and through mailout requests. An analysis of the comments received from this effort showed no discernible shifts in attitudes and opinions from those expressed during the RARE II process.

A major exploration company has expressed an interest in the area. Several major companies have conducted exploration programs in the area during the past few years.

5. Preferred Alternative Recommendation

This area is not recommended for wilderness designation under the Preferred Alternative (Alt. K).

A small amount of structural and nonstructural range improvements, as well as harvesting of woodland products, are part of the scheduled management for the area. ORV use is expected to increase. The area is not withdrawn from mineral entry. The potential for the occurrence of economic mineralization is high in the southern part of the area. The rest of the area has moderate potential for economic mineralization. It is likely that portions of the southern area may not be available for future wilderness consideration due to unscheduled mining developments.

TABLE A—ROADLESS AREA MANAGEMENT PRESCRIPTIONS BY FOREST PLAN ALTERNATIVE 839 ROADLESS AREA

MANAGEMENT PRESCRIPTION (See Table C-2 for complete description)	FOREST PLAN ALTERNATIVES (ACRES)								
	A	C	D	E	F	H	I	J	K
Current Situation		10858							43716
Lvstk/Min/Wood Prod (H)									
Lvstk/Dev Rec (H)									
Lvstk (H)									
Mot Disp/Wood Prod/ Dev Rec (H); Lvstk (M)									
Mot Disp/Wood Prod/Dev Rec (H); WL/S&W/Min/Lvstk (M)									
WL/Min (H)									
MotDisp/Wood Prod/Dev Rec (H); WL/S&W/Min (M)									
S&W/WL/NMDisp/Min (H)									
S&W/WL/NMDisp/Min (H), MDisp/Wood Prod/Dev Rec (M)									
All low	10858		55998	55998			55998		
All high except Lvstk					55998				
All high except WL									
All moderate						55998			
Wilderness	45140	45140						55998	

TABLE B—IMPACTS ON WILDERNESS CHARACTER 839 ROADLESS AREA

WILDERNESS CHARACTERISTICS	FOREST PLAN ALTERNATIVE								
	A	C	D	E	F	H	I	J	K
INTEGRITY/ NATURALNESS	Wilderness designation for 80% of area. Integrity same as J	Same as A	Management level lower than present. Integrity may be reduced by increased mining.	Same as D	Management emphasizes non-commodity resources. Integrity may be reduced.	Management level slightly higher than present. Integrity may be reduced.	Same as D	Integrity and naturalness are considered to be moderate.	Same as H
SOLITUDE	Same as J	Same as J	Solitude may be reduced.	Same as D	Same as J	Solitude may be reduced.	Same as D	Solitude is moderate.	Same as H
PRIMITIVE RECREATION	Same as J	Same as J	Same as solitude	Same as D	Same as J	Same as	Same as D	Primitive recreation is moderate.	Same as H
CHALLENGING EXPERIENCES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Opportunities exist.	Same as J
SPECIAL FEATURES	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	Same as J	The area has bighorn sheep and bristlecone pine. No impact.	Same as J

TABLE C--ENVIRONMENTAL CONSEQUENCES OF WILDERNESS/NONWILDERNESS DESIGNATIONS 839 ROADLESS AREA

ACTIVITY/OUTPUT (Average annual First Plan Period)		FOREST PLAN ALTERNATIVES								
		A	C	D	E	F	H	I	J	K
WILDERNESS	ACRES	45,140	45,140	-	-	-	-	-	55,998	-
Dispersed Rec.	MRVDS	1.37	1.37	-	-	-	-	-	1.69	-
NONWILDERNESS	ACRES	10,858	10,858	55,998	55,998	55,998	55,998	55,998	-	55,998
Dispersed Recreation										
Non-Motorized	MRVDS	.01	.01	.03	.03	.03	.03	.03	-	.03
Motorized	MRVDS	.32	.32	1.66	1.66	1.66	1.66	1.66	-	1.66
Wildlife Nonstructural Habitat Improv	ACRES	-	-	-	-	-	-	-	-	-
WL/Fish Use	M-WFUDS	1.01	.86	.99	.99	1.01	1.00	.99	1.01	1.00
Livestock	MAUMS	1.64	1.64	1.64	1.64	1.67	1.63	1.64	1.64	1.63
Fuelwood	MCORDS	.02	.02	.02	.02	.01	.02	.02	-	.02
Xmas Trees	MTREES	.01	.01	.01	.01	.01	.01	.01	-	.01
Sediment Yield	MTONS									
Soil Improvement	ACRES	.09	.09	.10	.10	.01	.09	.10	.08	.09
Minerals	CASES	6.72	6.94	5.78	5.78	6.94	6.94	5.78	6.94	6.94

Appendix D

APPENDIX D

GLOSSARY

A

Access - See Public access.

Acquired land - National Forest land purchased, donated, or received in exchange for purchased or donated lands. Acquired National Forest land has Weeks Act status under the Act of September 2, 1958 (72 Stat. 1571).

Acre equivalent - The index of acres affected by wildlife habitat improvements in contrast to actual acres treated.

Acre-foot - A measure of water or sediment volume equal to the amount which would cover an area of 1 acre to a depth of 1 foot (325,851 gallons).

Activity - The work processes or management practices that are conducted to produce, enhance, or maintain outputs or achieve administrative and environmental quality objectives (FSM 1309, Management Information Handbook). An activity can generate multiple outputs.

Activity fuels - Debris generated from any activity on the Forest such as firewood gathering, precommercial thinning, timber harvesting, and road construction, which increases fire potential.

Activity outputs - The quantifiable goods or services resulting from any management actions taken on the Forest.

Administrative headquarters site - A site which exists primarily for general administrative purposes. It normally will include office, warehouse, outside storage, and parking areas. It may include housing and pasture for livestock. A work center may be part of an administrative headquarters site.

Administrative unit - All the National Forest System lands for which one Forest Supervisor has responsibility.

Affected environment - The natural and physical environment under the administration of one line officer, such as District Ranger or Forest Supervisor.

Age class - An interval, usually 10 to 20 years, into which the age ranges of vegetation are divided for classification or use.

Agricultural base - Economy in which the base industry of a community is agriculture.

Airshed - A geographic area that, because of topography, meteorology, and climate, shares the same air. As applied to the National Forest by the Clean Air Act, amended August 1977, the term covers all wilderness areas larger than 5,000 acres that were in existence as of August 1977.

Alignment - The specific surveyed location or route.

Allocation - The assignment of management prescriptions or combination of management practices to a particular land area to achieve the goals and objectives of the alternative.

Alternative - One of several policies, plans, or projects proposed for decision-making.

Analysis area - One or more capability areas grouped for purposes of analysis. They are similar land areas of various sizes based on common impacts, effects, and social or economic factors.

Analysis of the Management Situation (AMS) - A determination of the ability of the planning area to supply goods and services in response to society's demand for those goods and services.

Animal Unit Month (AUM) - The amount of forage required by an animal unit (considered to be 1,000 lbs. for a cow) for 1 month.

Annual Forest program - The summary or aggregation of all projects that make up an integrated (multifunctional) course of action, at a given level of funding for a Forest planning area, that is consistent with the Forest Plan.

Annual work planning process - The process used to translate the objectives from the Regional Guide into specific activities to be carried out during one fiscal year.

Appropriate costs - The sum of operational and capital investment costs, including overhead.

Aquatic ecosystems - The physical environment of or pertaining to water--stream channel, lake or pond bed, wetland, water itself--and biotic communities that occur therein.

Arterial roads - Roads comprising the basic access network for National Forest System administrative and management activities. These roads serve all resource elements to a substantial extent, and maintenance is not normally determined by the activities of any one element. They provide service to large land areas and usually connect with public highways or areas or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum mobility and travel efficiency rather than by a specific resource management service. Usually, they are developed and operated for long-term land and resource management purposes and constant service.

Assessment - The Forest and Rangeland Renewable Resource Assessment required by the Resources Planning Act (RPA).

Avoidance areas - Areas having one or more physical, environmental, institutional, or statutory impediments to corridor designation.

There are two types of avoidance areas:

1. Discretionary--areas that may be crossed by corridors only if necessary and reasonable mitigation or avoidance of significant impacts can be obtained.

2. Nondiscretionary--areas that may not be crossed by corridors unless authorized by the appropriate official (for example, Governor, President).

B

Base property (commensurate property) - Those lands in a ranching enterprise which are owned by the operator and are considered as the basis for a term grazing permit.

Baseline - With respect to soils, the amount of erosion and sedimentation due to natural sources in the absence of human activity.

Benchmark - Reference points that define the bounds within which feasible management alternatives can be developed. Benchmarks may be defined by resoure output or economic measures.

Benefit - The total value of an output or other effect.

Benefit cost/ratio - Measure of economic efficiency computed by dividing total discounted primary benefits by total discounted economic costs.

Best Management Practices (BMP) - A practice or combination of practices that are the most effective and practical (including technological, economic, and institutional considerations level compatible with water quality goals.

Big game - Those species of large mammals normally managed as a sport hunting resource.

Biological control - A method to control pest populations through the use of antagonistic organisms.

Biological potential - The maximum possible output of a given resource, limited only by its inherent physical and biological characteristics.

Board feet - The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick. Generally, five board feet log measure is approximately equivalent to one cubic foot of round wood.

Board foot/cubic foot conversion ratio - Both board foot and cubic foot volumes can be determine for timber stands. The number of board feet per cubic foot of volume varies with tree species, diameter, height, and form factors. This factor is applied to the cubic foot FORPLAN outputs to give board foot estimates.

Broadcast burn - Allowing a prescribed fire to burn over a designated area within well-defined boundaries for reduction of fuel hazard or as a silvicultural treatment, or both.

British Thermal Unit (BTU) - The amount of heat required to raise the temperature of one pound of water one degree Farenheit.

Browse - Twigs, leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs which are utilized by big game animals for food.

C

Canopy - The more-or-less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.

Capability - The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Capital investment costs - Those associated with construction or development of improvements; includes road construction, reforestation, campground construction, range improvements, etc.

Carrying capacity - The number of organisms of a given species and quality that can survive in, without causing deterioration of, a given ecosystem through the least favorable environmental conditions that occur within a stated interval of time.

Catastrophic condition - A significant change in forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and effects on local communities and environmental quality.

Cavity - The hollow excavated in trees by birds or other natural phenomena; used for roosting and reproduction by many birds and mammals.

CFR - Code of Federal Regulations.

Chemical control - A method to control insect populations, noxious weeds, undesirable vegetation, tree diseases, or other pests through the use of applied chemicals.

Climax - The highest ecological development of a plant community capable of perpetuation under the prevailing climatic and edaphic conditions.

Closure - The administrative order restricting either location, timing, or type of use in a specific area.

Coliform bacteria - Any of several bacteria found in the large intestine of man and animals, the presence of which indicates fecal pollution.

Collector roads - Roads constructed to serve two or more elements but which do not fit into the other two categories (arterial or local). Construction costs of these facilities are prorated to the respective element served. These roads serve smaller land areas and are usually connected to a Forest arterial or public highway. They collect traffic from Forest roads or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs and travel efficiency. Forest collector roads are operated for constant service.

Commodities - Products produced from a parcel of land; e.g., outputs of wood, livestock forage, and minerals.

Community lifestyles - The ways in which residents conduct their everyday routines and how the "way they live" is associated with the National Forest.

Community stability - The capacity of a community to absorb and cope with change without major hardship to institutions or groups within the community.

Concern - See "Management concern."

Confinement - To restrict the fire within determined boundaries established either prior to the fire, during the fire, or in an escaped fire situation analysis. The normal tactic is surveillance only.

Congressionally classified and designated areas - Areas which require Congressional enactment for their establishment, such as National Wilderness, National Wild and Senic Rivers, and National Recreation Areas.

Conifer - Those cone-bearing trees, mostly evergreen, including the pine, spruce, fir, etc.

Consumptive use - A use of resources that reduces the supply, such as logging and mining. See also "Nonconsumptive use."

Containment - To surround a fire, and any spot fires therefrom, with control line, as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions. The normal tactic is indirect attack and burn to human-made or natural barrier with little or no mop-up.

Control - To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved, burn out any unburned area adjacent to the fire side of the control line, and cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions. The normal tactic is direct attack on the fire, if possible, and mop-up.

Corridor - A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries.

Cost effectiveness - Achieving specified outputs or objectives under given conditions for the least cost.

Cost-efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and rates-of-return may be appropriate.

Council on Environmental Quality - An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Cover/forage ratio - The ratio of cover (usually conifer types) to foraging areas (natural openings, clearcuts, etc.)

Critical habitat - Areas designated by the Secretary of the Interior or Commerce for the survival and recovery of federally listed threatened or endangered species.

Cubic foot - The amount of timber equivalent to a piece of wood one foot by one foot by one foot.

Cubic yard - A measure of soil or sediment volume which would cover a square yard of area one yard deep (3 feet x 3 feet x 3 feet).

Cultural resource - The remains of sites, structures, or objects used by humans in the past--historical or archaeological.

Cultural sensitivity - Refers to the likelihood of encountering significant cultural volumes (quantity and/or quality) which may affect and be affected by ground-disturbing activities.

Current Management - Management of the Humboldt National Forest under existing standards and guidelines with annual costs and outputs based on average costs and outputs for fiscal years 1974-85, adjusted to FY 1982 dollars.

D

dbh - Diameter at breast height. The diameter of a tree measured 4 feet 6 inches above the ground.

Decision criteria - Essentially the rules or standards used to evaluate alternatives. They are measurements or indicators that are designed to assist a decisionmaker to identify a preferred choice from the array of possible alternatives.

Demand - The quantity of goods or services called for at various prices, holding other factors constant.

Dependent communities - Communities whose social, economic, or political life would become discernably different in important respects if market or nonmarket outputs from the National Forests were cut off.

Design capacity - The maximum theoretical amount of use a developed recreation site was built to accommodate.

Design standard - Approved design and construction specifications mainly used for recreation facilities and roads--includes specified materials, colors, dimensions, etc.

Designated corridor - A linear area of land with defined and recognized boundaries identified and designated by legal public notice.

Destination resort - A recreation resort designed for multi-day use in contrast to day use.

Developed recreation - Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.

Developed recreation site - Relatively small, distinctly defined area where facilities are provided for concentrated public use; e.g., campgrounds, picnic areas, swimming areas.

Direct outputs - Resource outputs that are caused by the action and occur at the same time and place.

Discount rate - An interest rate that represents the cost or time value of money in determining the present value of future costs and benefits.

Discounting - An adjustment, using a discount rate, for the value of money over time so that costs and benefits occurring in the future are reduced to a common time, usually the present, for comparison.

Dispersed recreation - A general term referring to recreation use outside the developed recreation site; this includes activities such as scenic driving, hunting, backpacking, and recreation in primitive environments.

District - See "Ranger District."

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. See also "Edge," "Horizontal Diversity," and "Vertical Diversity."

Draft Environmental Impact Statement - The statement of environmental effects which is required for major Federal actions under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

E

Early forest succession - The biotic community that develops immediately following the removal or destruction of the vegetation in an area.

Economic efficiency analysis - An analytical method in which incremental market and nonmarket benefits are compared with incremental economic costs.

Economic growth - Increased economic output in real terms over time.

Ecosystems - An interacting system of organisms considered together with their environment; for example, marsh, watershed, and lake ecosystems.

Edge - Where plant communities meet or where successional stages or vegetation conditions within the plant communities come together. See also "edge contrast" and "horizontal diversity."

Edge contrast - A qualitiative measure of the difference in structure of two adjacent vegetative areas; for example, "low," "medium," or "high" edge contrast.

Effects - Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effects and impacts as used in this statement are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial (40 CFR 1508.8).

Electronic sites - Areas designated for the operation of equipment which transmit and receive radio signals, excluding television aerials and antennas, for local pickup of programing and passive reflectors.

Endangered species - Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plants or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

Endemic plant - A plant confined to a certain country or region and with a comparatively restricted geographic distribution.

Environmental analysis - An analysis of alternative actions and their predictable short-and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions.

Environmental Assessment - The concise public document required by the regulations for implementing the procedural requirements of NEPA (40 CFR 1508.9).

Environmental documents - A set of concise documents to include, as applicable, the Environmental Assessment, Environmental Impact Statement, Finding of No Significant Impact, or Notice of Intent.

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Ephemeral streams - Streams that flow only as a direct response to rainfall or snowmelt events. They have no base flow.

Escape cover - Usually, vegetation dense enough to hide an animal; an area used by animals to escape from potential predators.

Evaluation criteria - Standards developed for appraising alternatives.

Exclusion areas - Areas having been determined to be unavailable for corridor allocation or facility siting for reasons of unsuitability, legislative classification, or prior, unalterable allocation of uses incompatible with the proposed use.

Expanded suppression - The control or containment of wildfires at increased acreage within allowable fire intensity levels and fire control standards.

Experience levels - The range of opportunities for satisfying basic recreation needs of people. A scale of five experience levels ranging from "primitive" to "modern" is planned for the National Forest System.

Extensive grazing - Management seeks full utilization of forage allocated to livestock. Cost-effective management systems and techniques, including fencing and water development, are designed and applied to obtain relatively uniform livestock distribution and use of forage and maintain plant vigor.

F

Facilities - Improvements that are used for shelter or support of Forest Service programs. Examples include Ranger Station compounds, leased offices, housing areas, work centers, recreation complexes, and utility systems.

Facility condition class - The rating system used in the Recreation Information Management System to classify the condition of repair that a specific facility is in and maintenance needs of recreation sites and areas. Used for planning and budget request.

Family unit - A developed site or picnic spot with table, fireplace, tent pad, and parking spot designed to handle a group of people.

Federal Register - Published document that provides a uniform system for making available to the public regulations and legal notices issued by federal agencies.

Fee ownership - Ownership of property that has no limitation, qualification, or condition affecting it and is the maximum possible ownership in real estate under the system of property rights founded on English common law.

Fee purchase - Acquisition of fee ownership to a piece of property.

Fee site - A Forest Service recreation area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities as specified in the Forest Service Manual.

Fire hazard - The fuel in which a fire will ignite and burn.

Fire management - All activities required for protection of resources from fire and the use of fire to meet land management goals and objectives.

Fire risk - The potential cause of a fire.

Fisheries habitat - Streams, lakes, and reservoirs that support fish.

Flood plains - The lowland and relatively flat area adjoining inland waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

Forage - All browse and nonwoody plants that are available to livestock or wildlife for grazing or harvested for feeding.

Forb - Any herbaceous plant other than true grasses, sedges, or rushes.

Forest and Rangeland Renewable Resources Planning Act of 1974 - An Act of Congress requiring the preparation of a program for the management of the National Forests' renewable resources and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

Forest development roads and trails - A legal term for Forest roads or trails that are under the jurisdiction of the Forest Service.

Forest Supervisor - The official responsible for administering the National Forest System lands in a Forest Service administrative unit, which may consist of two or more National Forests or all the Forests within a state. He reports to the Regional Forester.

Forest development transportation system - Roads that are part of the Forest development transportation system, which includes all existing and planned roads, trails, and airfields, as well as other special and terminal facilities designated as Forest development transportation facilities. (See arterial roads, collector roads, and local roads.)

Forest-wide standard - A performance criterion indicating acceptable norms, specifications, or quality that actions must meet to maintain the minimum considerations for a particular resource. This type of standard applies to all areas of the Forest regardless of the other prescriptions applied.

FORPLAN - A linear programing system used for developing and analyzing Forest planning alternatives.

FSH - Forest Service Handbook.

FSM - Forest Service Manual.

FSM - Full Service Management is achieved in recreation when signing, cleanup, and other activities are accomplished according to standards and objectives established in approved management plans.

Fuel model - A simulated fuel complex for which all the fuel descriptions required by the mathematical fire spread model have been specified.

Fuel treatment - The rearrangement or disposal of natural or activity fuels to reduce the fire hazard. Fuels are defined as both living and dead vegetative materials consumable by fire.

Fuels - Include both living plants and dead, woody vegetative materials which are capable of burning.

Fuels management - The practice of planning and executing treatment or control of any vegetative material that adversely affects meeting fire management direction based upon resource management goals and objectives.

Fuelwood - Wood (round, split, or sawed, and generally otherwise refuse material) cut into short lengths for burning. Includes firewood.

Full service management - See "FSM." Management of developed recreation facilities to provide optimum maintenance.

Future scenarios - A word picture of a fixed sequence of future events in a defined environment.

G

Game species - Any species of wildlife or fish for which seasons and bag limits have been prescribed and which are normally harvested by hunters, trappers, and fishermen under state or Federal laws, codes, and regulations.

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

Goods and services - The various outputs, including on-site uses, produced from forest and rangeland resources.

Grass/forb - An early Forest successional stage where grasses and forbs are the dominant vegetation.

Growing season - The months of the year during which a species of vegetation grows.

Guideline - An indication or outline or policy or conduct; i.e., any issuance that assists in determining the course of direction to be taken in any planned action to accomplish a specific objective.

H

Habitat - The place where a plant or animal naturally or normally lives or grows.

Habitat diversity index - A measure of habitat diversity improvement expressed as a percentage of optimum size class distribution that is achieved over time.

Habitat grouping - Grouping of habitat types in logical categories to facilitate resource planning.

Habitat type - The aggregate of all areas that support or can support the same primary vegetation at climax.

Herbicide - A chemical compound used to kill or control growth of undesirable plant species.

Hiding area - Includes vegetation capable of hiding 90 percent of an adult elk or deer from a human's view at a distance equal to or less than 200 feet (61 m.).

Horizontal diversity - The distribution and abundance of different plant and animal communities or successional stages across an area of land; the greater the number of communities, the higher the degree of horizontal diversity.

I

Immediate suppression - Immediate control of wildfire as required by fuels and associated risk conditions.

Implementation - Those activities necessary to respond to the approved Land and Resource Management Plan.

Incidental grazing - Grazing use that occurs on lands not managed for the production of domestic livestock. May occur as a result of natural herd movement, trailing of livestock, or the use of domestic livestock in recreation.

Indirect outputs - Outputs caused by the action but which are later in time or farther removed in distance, although still reasonably foreseeable.

Induced outputs - Outputs in the private sector induced by the direct outputs produced on the Forest.

Inherent edge - Naturally occurring breaks between two or more elements of the environment.

Indicator species - A plant or animal species adapted to a particular kind of environment. Its presence is sufficient indication that specific habitat conditions are also present.

Input/output analysis - A quantitative study of the interdependence of a group of activities based on the relationship between inputs and outputs of the activities. The basic tool of analysis is an input-output model for a given period that shows simultaneously for each economic sector the value of inputs and outputs, as well as the value of transactions within each economic sector. It has especially been applied to estimate the effects of changes in Forest output levels on local economic activity.

Insecticide - An agent used to control insect populations.

Instream flow - Those nonconsumptive in situ quantities of water necessary to meet seasonal stream flow requirements to accomplish the purposes of the National Forests, including, but not limited to, maintenance of favorable conditions of water flow, fisheries, visual quality, and recreational opportunities at acceptable levels.

Integrated pest management - A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated population on various resource values, alternative regulation tactics and strategies and benefit/cost estimates of those alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides.

Intensive grazing - Grazing management that controls distribution of cattle and duration of use on the range, usually by fences, so parts of the range are rested during the growing season.

Interdisciplinary approach - The utilization of individuals representing two or more areas of knowledge and skills focusing on the same task, problem, or subject. Team member interaction provides necessary insight to all stages of the process.

Intermittent streams - A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas.

Intermountain Region - That part of the National Forest System which encompasses National Forests within the Intermountain Region (Utah, southern and central Idaho, western Wyoming, and Nevada).

Interpretive services - Visitor information services designed to present educational and recreational values to Forest visitors to enhance their understanding, appreciation, and enjoyment of the Forest.

Interpretive site - A developed site at which a broad range of natural or cultural history is interpreted or discussed for the emjoyment of the public.

Inventory data and information collection - The process of obtaining, storing, and using current inventory data appropriate for planning and managing the Forest.

Irretrievable - Applies to losses of production, harvest, or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible - Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.

J

K

Kuchler vegetation types - Potential natural vegetation of the coterminous United States, classified by Kuchler.

Key summer range - That portion of the summer range essential for the continuation of both the pre- and post-reproductive cycles for all wildlife species.

Key winter range - The portion of the year-long range where big game find food and/or cover during severe winter weather.

L

Land exchange - The conveyance of non-Federal land or interests in the United States in exchange for National Forest System land or interests in land.

Landline - For Forest Plan purposes, National Forest property boundaries.

Landline location - Legal identification and accurate location of National Forest property boundaries.

Late forest succession - A stage of forest succession where the majority of trees are mature or overmature.

Landownership pattern - The National Forest System resource land base in relation to other landownerships within given boundaries.

Limited surface occupancy - A mineral lease clause that recognizes an opportunity for occupancy but that requires further evaluation based on site-specfic proposals.

Linear programing - A mathematical method used to determine the cost-effective allocation of limited resources between competing demands when both the objective; e.g., profit or cost, and the restrictions on its attainment are expressible as a system of linear equalities or inequalities; e.g., $y=x+bx$.

Local dependent industries - Industries relying on National Forest outputs for economic activity.

Local roads - Roads constructed and maintained for, and frequented by, the activities of a given resource element. Some use may be made by other element activities, but normally maintenance is not affected by such use. These roads connect terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard are usually determined by the requirements of a specific resource activity rather than by travel efficiency. Forest local roads may be developed and operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility.

M

M - Thousand

Management action - Any activity undertaken as part of the administration of the Forest.

Management area - An area of land with similar management goals and a common management prescription.

Management concern - An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

Management direction - A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

Management intensity - A management practice or combination of management practices and associated costs designed to obtain different levels of goods and services.

Management Indicator Species (MIS) - A species selected because its population changes indicate effects of management activities on the plant and animal community. A species whose condition can be used to assess the impacts of management actions on a particular area.

Management opportunity - A statement of general actions, measures, or treatments that address a public issue or management concern in a favorable way.

Management practice - A specific activity, measure, course of action, or treatment.

Management prescription - Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Management program - A set of activities designed to acheive a specific outcome.

Market-value outputs - Goods and services valued in terms of what people are willing to pay for them, as evidenced by market transactions.

Maximum modification - See "Visual quality objectives."

MAUM's - A symbol to indicate 1,000 animal unit months of livestock forage.

MBF - Thousand board feet, a measure of wood volume.

MCF - Thousand cubic feet, a measure of wood volume.

Mineral development - The preparation of a proven deposit for mining.

Mineral entry - The filing of a mining claim for public land to obtain the right to any minerals it may contain.

Mineral entry withdrawal - The exclusion of the right of exclusive possession by the locator, of locatable mineral deposits and mineral development work on areas required for administrative sites by the Forest Service and other areas highly valued by the public. Public lands withdrawn from entry under the general mining laws and/or the mineral leasing laws.

Mineral exploration - The search for valuable minerals on lands open to mineral entry.

Mineral fractions - Small, irregularly shaped parcels of National Forest lands created by the presence of a number of mining patents haphazardly located.

Mineral production - Extraction of mineral deposits.

Mineral soil - Weathered rock materials without any vegetative cover.

Minerals, common variety - Deposits which, although they may have value for use in trade, manufacture, the sciences, or in the mechanical or ornamental arts, do not possess a distinct, special economic value for such use over and above the normal uses of the general run of such deposits. May include sand, stone, gravel, pumicite, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood.

Minerals, leasable - Coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur, and geothermal steam.

Minerals, locatable - Those hardrock minerals which are mined and processed for the recovery of metals. May include certain nonmetallic minerals and uncommon varieties of mineral materials such as valuable and distinctive deposits of limestone or silica. May include any solid, natural inorganic substance occurring in the crust of the earth, except for the common varieties of mineral materials and leasable minerals.

Minimum level management - The management strategy that would meet only the basic statuatory requirements of administering unavoidable, nondiscretionary land uses; preventing damage to adjoining lands of other ownerships; and protecting the life, health, and safety of incidental users.

Minimum streamflows - A specified level of flow through a channel that must be maintained by the users of streams for biological, physical, or other purposes.

Mining claims - That portion of the public estate held for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

Mitigation - Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a management practice.

MM - Million.

MMBF - Million board feet.

MMCF - Million cubic feet.

Monitoring and evaluation - The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.

Mosaic of forest and openings - Areas with trees and areas without trees occurring in interrupted sequence.

Multiple Use - The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

N

National Environmental Policy Act (NEPA) - An Act to declare a National policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, to enrich the understanding of the ecological systems and natural resources important to the Nation and to establish a Council on Environmental Quality.

National Forest Land and Resource Management Plan - A Plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given National Forest.

National Forest Management Act (NFMA) - A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act requiring the preparation of Regional Guides and Forest Plans and the preparation of regulations to guide that development.

National Forest System (NFS) lands - National Forests, National Grasslands, or purchase units, and other lands under the management of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

National Recreation Trails - Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the National system of trails authorized by the National Trails System Act. National Recreation Trails provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

National Register of Historic Places - A listing (maintained by the U.S. National Park Service) of areas which have been designated as being of historical significance. The Register includes places of local and state significance as well as those of value to the Nation.

National Wilderness Preservation System - All lands covered by the Wilderness Act and subsequent Wilderness designations, irrespective of the department having jurisdiction.

Natural barrier - A natural feature that will restrict livestock movements such as a dense stand of trees or downfall.

Natural catastrophic condition - A significant change in Forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and impacts on local communities and environmental quality.

NEPA - An abbreviation for the National Environmental Policy Act.

Net public benefits - An expression used to signify the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principles of multiple use and sustained yield.

No action alternative - The most likely condition expected to exist in the future if current management direction were to continue unchanged.

No surface occupancy - A mineral lease clause that permits passive activities suh as seismic exploration or directional drilling from adjacent areas, but prohibits drilling or the occupancy of the surface.

Noncommodity outputs - A resource output that cannot be bought and sold.

Nonconsumptive use - That use of a resource that does not reduce the supply. For example, nonconsumptive use of water includes hydroelectric power generation, boating, swimming, and fishing.

Nonforest land - See "Timber classification."

Nongame - Species of animals which are not managed for sport hunting resource.

Nonpoint source pollution - Sources of pollution that are diffuse in origin, their transportation into receiving water not well defined or constant, their discharge occurring at many diffuse locations, and depending heavily on weather conditions such as rainstorms or snowmelt. Pollution from Forest management is of this type.

Nonmarket valued outputs - Goods and services not generally traded in the marketplace, but valued in terms of what reasonable people would be willing to pay for them rather than go without. Those obtaining the actual outputs do not necessarily pay what they would be willing to pay for them.

Notice of Intent - Written notice to the affected District Ranger, by those who intend to engage in mining activity on the Forest, of proposed prospecting, exploration, mining, and mineral processing activities. Also, a notice in the Federal Register of intent to prepare an environmental statement on a proposed action.

Noxious farm weeds - Those pernicious plant species occurring unnaturally on National Forest System lands that have the greatest potential of contributing to an unfavorable economic impact on crop or pasture land downstream.

NPB - An abbreviation of net public benefits.

O

Objective - A concise, time-specific statement of measurable planned results that respond to preestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Occupancy trespass - The illegal occupation or possession of National Forest land or property.

Off-road vehicle (ORV) - Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles, and snowmobiles.

Operational costs - Those costs associated with administering and maintaining National Forest facilities and resource programs.

Operational Plan - A written document approved by the Forest Supervisor which provides specifically, at the project level, for implementation of the management direction established in the Forest Plan.

Optimum - A level of production that is consistent with other resource requirements as constrained by environmental, social, and economically sound conditions.

ORV - An abbreviation for off-road vehicles.

Outputs - The goods, services, products, and concerns which are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. Goods, end products, or services that are purchased, consumed, or utilized directly by people. A broad term for describing any result, product, or service that a process or activity actually produces.

Overflow camping - Developed site camping that occurs in excess of designed site capacity.

Overstory - That portion of the trees, in a Forest or more than one story, forming the upper or uppermost canopy.

Overthrust belt - A narrow zone extending from Alaska to Mexico, which resulted from compressional stresses within the earth, and which is characterized by abundant large thrust faults.

P

PAOT - See "persons-at-one-time (PAOT)."

PARS - The burned acreage and fire occurrence guidelines which represent the annual average long-term fire loss. PARS are expressed by size class and fire intensity levels.

Particulates - Small particles suspended in the air and generally considered pollutants.

Patented mining claim - A patent is a document which conveys title to land. When patented, a mining claim becomes private property and is land over which the United States has no property rights, except as may be reserved in the patent. After a mining claim is patented, the owner does not have to comply with requirements of the General Mining Law or implementing regulations.

Payment in lieu of taxes - Payments to local or state governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing. Specifically, they include payments made under the Payments in Lieu of Taxes Act of 1976 by U.S. Department of the Interior.

Permitted grazing - Use of a National Forest range allotment under the terms of a grazing permit.

Personal use - Normally used to describe the type of permit issued for removal of wood products (firewood, post, poles, and Christmas trees) from National Forest land when the product is for home use and not to be resold for profit.

Persons-at-one-time (PAOT) - A recreation capacity measurement term indicating the number of people who can use a facility or area at one time.

Person-year - Approximately 2,080 working hours. May be filled by one person working year long or several people filling seasonal positions.

Physiographic surface - A land surface created by geological processes of intrusion, deposition, erosion, or structural movement.

Planned ignitions - A fire started by a deliberate management action.

Planning area - The area of National Forest land covered by a Regional Guide or Forest Plan.

Planning corridor - A general broad linear area of land used to evaluate where a specific right-of-way could be placed.

Planning criteria - Standards, tests, rules, and guidelines by which the planning process is conducted and upon which judgments and decisions are based.

Planning period - The 50-year time frame for which goods, services, and effects were projected in the development of the Forest Plan.

Planning questions - A major policy question of long-range significance, derived from the public issues and management concerns, to be decided when selecting among alternative Forest Plans.

Planning records - A system that records decisions and activities which result from the process of developing a Forest Plan, revision, or significant amendment.

Policy - A guiding principle which is based on a specific decision or set of decisions.

PNV - An abbreviation of present net value.

Practices - Those management activities that are proposed or expected to occur.

Predator - One that preys, destroys, or devours--usually an animal that lives by preying on other animals.

Preferred alternative - The alternative recommended for implementation in the Forest Plan.

Preparatory cut - The removal of trees near the end of a rotation, which permanently opens the canopy and enables the crowns of seed bearers to enlarge, to improve conditions for seed production and natural regeneration. Typically done in the shelterwood system.

Prescribed fire - A wildland fire burning under specified conditions which will accomplish certain planned objectives. The fire may result from either planned or unplanned ignitions. Plans for use of unplanned ignitions for this purpose must be approved by the Regional Forester.

Prescription - A predesignated set of criteria established for the use of prescribed fire to accomplish specific land and resource management objectives. See "Management prescription."

Presuppression - Activities organized in advance of fire occurrence to assure effective suppression action.

Production potential - The capability of the land or water to produce a given resource.

Program - When capitalized, the Renewable Resource Program required by the RPA. Generally, sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.

Program Budget - The fiscal planning document for estimating short- and long-range dollar needs by program area.

Program development and budgeting - The process by which activities for the Forest are proposed and funded.

Project administrative site - A site with facilities such as guard stations, project work cabins, and other facilities primarily existing for project purposes.

Project design - The process of developing specific information related to location, timing, activities, accountability, and control that result in the achievement of an objective or desired future condition.

Projects - Work schedule prescribed for a project area to accomplish management prescriptions. Projects can be for operation maintenance and protection (OMP) or for investment purposes. OMP projects are for ongoing work and are generally considered 1 year at a time. Investments can be of multiyear duration. A project is organized for managerial convenience, and is described by location, activities, outputs, effects, work force, dollars, time, and responsibility for execution.

Proposed action - In terms of the National Environmental Policy Act, the project, activity, or decision that a Federal agency intends to implement or undertake.

Public access - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use.

Public issue - A subject or question of widespread public interest relating to management of the National Forest System.

Public participation - Meetings, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning.

Q

Quad maps - Standard U.S. Geological Survey quadrangle maps.

Quality management (range) - Management of the range ecosystem where vegetation production is being maximized, soils disturbance is minimal, and animal production is high. Impacts to the environment are low.

R

RA - Abbreviation for range analysis.

Range - Lands producing native forage for animal consumption and lands that are revegetated naturally or artificially to provide forage cover that is managed like native vegetation, which are amenable to certain range management principles or practices.

Range allotment - An area designated for use of a prescribed number and kind of livestock under one management plan.

Range condition - The state of health of the range based on what it is naturally capable of producing.

Ranger District - Administrative subdivisions of the Forest supervised by a District Ranger who reports to the Forest Supervisor.

Raptors - Bird of prey with a strong notched beak and sharp talons, such as the eagle, hawk, owl, etc.

RARE II - See Roadless Area Review and Evaluation II.

Real dollar value - A monetary value that compensates for the effects of inflation.

Receipts - Money collected from timber stumpage, livestock grazing, campgrounds, and special use permits, which returns to the federal treasury.

Record of Decision - A document separate from but associated with an Environmental Impact Statement that publicly and officially discloses the responsible official's decision on which alternative assessed in the Environmental Impact Statement to implement.

Recreation capacity - The number of people that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience sought after.

Recreation experience level - A classification (using a 1 to 5 scale) of the level of development in camp and picnic sites as to the types of recreation opportunities and modifications to the environment that can be expected.

Recreation Information Management (RIM) - The Forest Service system for recording recreation facility condition and use.

Recreation opportunity - Availability of a real choice for a user to participate in a preferred activity within a preferred setting, in order to realize those satisfying experiences which are desired.

Recreation Opportunity Spectrum (ROS) - A method of measuring the ability of the Forest land to meet the various types of demands imposed by a variety of recreation uses.

Recreation (PAOT) - Refers to people at one time that occupy a given campground, picnic area, or any other developed recreation area.

Recreation residences - Houses or cabins on National Forest land that are not the primary residence of the owner.

Recreation types - A term used to indicate the type of recreation experience sought by Forest users. They are overlapping portions of the total recreation preferences spectrum that the public may express demands for.

Type I. Orientations toward using the natural, unmodified environment for the appreciation and understanding of natural phenomena; as a source of intellectual and/or physical challenges; for seeking solitude; and for esthetic stimulations.

Type II. Orientations toward using a natural or semiprivate environment in searching for and extraction of indigenous fish and/or game species, rocks, minerals, edible plants, etc., and for enjoyment of the physical surroundings in which such extractable objects are found.

Type III. Orientations toward using semiprimitive, lightly developed areas for relaxing in natural surroundings; as a source of tranquility and freedom from tension; and for esthetic stimulation.

Type IV. Orientations toward using moderately developed areas and the surrounding environment for intentional social interaction and group learning experiences.

Type V. Orientations toward using highly developed areas for social interactions with many other people and for pursuits which allow for the expression of learned physical abilities.

Developed Recreation. Recreation that occurs whre modifications (improvements) enhance recreation opportunities and accommodate intensive recreation activities in a defined area. Includes some Type II, and all of Type IV and V.

Dispersed Recreation. Recreation use that requires few, if any, improvements, and may occur over a wide area. This type of recreation involve-activities related to roads and trails. The activities do not necessarily take place on or adjacent to a road or trail, only in conjunction with it. Activities tend to be day-use oriented and include hunting, fishing, berrypicking, off-road vehicle use, hiking, horseback riding, picnicking, camping, vieweing scenery, snowmobiling, and many others. Includes Type I, Type II, and a portion of Type III.

Recreation visitor day (RVD) - Twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Recreational livestock - Animals used primarily in conjunction with recreation such as horses, mules, etc.

Reduced service management (RSM) - Management of developed recreation facilities below optimum maintenance standards.

Region - For Regional planning purposes, the standard administrative Region of the Forest Service, administered by the official responsible for preparing a Regional Guide.

Regional analysis areas - Geographic areas within the Region that encompass several Forests or Grasslands.

Regional Forester - The official responsible for administering a single Region.

Regional Guide - The guide developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given Region. It also disaggregates the RPA objectives assigned to the Region to the Forests within that Region.

Regulations - Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service.

Research Natural Areas (RNA) - An area in as near a natural condition as possible which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed.

Resource allocation model - A mathematical model using linear programing which will designate land to prescriptions and schedule implementation of those prescriptions simultaneously. The purpose of the model is to find a schedule and allocation that meets the goals of the Forest and optimizes some objective function such as "minimize costs."

Resource element - A major Forest Service mission-oriented endeavor which fulfills statutory or executive requirements and compromises a collection of activities from the various operating programs required to accomplish the mission. The twelve resource elements are: Recreation, wilderness, wildlife and fish, range, timber, water-soil-air, minerals, human and community development, lands, facilities, protection, and general administration.

Resource Management Plan - A Plan developed prior to the Forest Plan that outlines the activities and projects for a particular resource element independently of considerations for other resources. Such Plans are superseded by the Forest Plan.

Resource use and development opportunities - A possible action, measure, or treatment and corresponding goods and services identified and introduced during the scoping process which subsequently may be incorporated into and addressed by the Land and Resource Management Plan in terms of a management prescription.

Responsible official - The Forest Service employee who has been delegated the authority to carry out a specific planning action.

Retrogressive vegetative succession - A reversal of the usual ecological trend toward more complex and stable plant communities.

Right-of-way - An accurately located strip of land with defined width, point of beginning, and point of ending. It is the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding (MOU).

Riparian - Areas of land that are directly influenced by water. They usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.

Riparian ecosystems - A transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem and is identified by soil characteristics and distinctive vegetation communities that require free or unbounded water.

Road maintenance levels - Levels are described as follows:

Level 1.	Road normally closed to vehicle traffic.
Level 2.	Road open for limited passage of traffic but not normally suitable for passenger cars.
Level 3.	Road open for public traffic including passenger cars, but may not be smooth or comfortable.
Level 4.	Road suitable for all types of vehicles, generally smooth to travel, and dust may be controlled.
Level 5.	Road is smooth and dust free, and the surface is skid resistant if paved.

Roaded natural - A classification of the recreation opportunity spectrum that characterizes a predominately natural environment with evidence of moderate permanent alternate resources and resource utilization. Evidence of the sights and sounds of man is moderate, but in harmony with the natural environment. Opportunities exist for both social interaction and moderate isolation from sights and sounds of man.

Roadless Area Review and Evaluation II (RARE II) - The national inventory of roadless and undeveloped areas within the National Forests and Grasslands. This refers to the second such assessment which was documented in the Final Environmental Impact Statement of the Roadless Area Review and Evaluation, January

1979.

RPA Program - The Forest and Rangeland Renewable Resources Planning Act of 1974. Also refers to the National Assessment and Recommended Program developed to fulfill the requirements of the Act. The most recent recommended program was done in 1980.

RSM - See "reduced service management."

Rural - A recreation opportunity spectrum classification for areas characterized by a substantially modified natural environment. Sights and sounds of man are evident. Renewable resource modification and utilization practices enhance specific recreation activities or provide soil and vegetative cover protection.

RVD's - An abbreviation of recreation visitor days.

S

Scenic areas - Places of outstanding or matchless beauty which require special management to preserve these qualities. They may be established under 36 CFR 294.1 whenever lands possessing outstanding or unique natural beauty warrant this classification.

Scenic easement - An interest in the land of another which allows the easement holder specified uses or rights without actual ownership of the land. In this case, control of the use of land adjacent to public highways, parks, and rivers. It may provide something attractive to look at within the easement area, an open area to look through to see something attractive beyond the easement itself, or a screen to block out an unsightly view beyond the easement area.

Scoping process - A continuing process throughout the environmental analysis for planning and management activities. It may involve a series of meetings, telephone conversations, or written comments from different interested groups.

Selected alternative - The alternative recommended for implementation as the Forest Plan based on the evaluation completed in the planning process.

Semiprimitive motorized - A classification of the recreation opportunity spectrum characterized by a predominantly unmodified natural environment in a location that provides good to moderate isolation from sights and sounds of man except for facilities/travel routes sufficient to support motorized recreational travel opportunities which present at least moderate challenge, risk, and a high degree of skill testing.

Semiprimitive nonmotorized - A classification of the recreation opportunity spectrum characterized by a predominately unmodified natural environment of a size and location that provides a good to moderate opportunity for isolation from sights and sounds of man. The area is large enough to permit overnight foot travel within the area, and presents opportunity for interaction with the natural environment with moderate challenge, risk, and use of a high degree of outdoor skills.

Sensitive species - Plant or animal species which are susceptible or vulnerable to activity impacts or habitat alternations.

Sensitivity level - A particular degree of measure of viewer interest in scenic qualities of the landscape. Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment:

Level 1 - Highest sensitivity
Level 2 - Average sensitivity
Level 3 - Lowest sensitivity

Seral condition - The unique characteristics of a biotic community which is a developmental, transitory stage in an orderly ecologic succession involving changes in species, structure, and community processes with time.

Shrub/seedling - A Forest successional stage in which shrubs and seedling trees are the dominant vegetation.

Sight distance - The distance at which 90 percent or more of a deer or elk is hidden from an observer. Hiding cover exists when 90 percent or more of a standing deer or elk is hidden at a distance of 200 feet or less.

Site index - A numerical evaluation of the quality of land for plant productivity.

Site productivity - Production capability of specific areas of land.

Slash - The residue left on the ground after timber cutting and/or accumulation there as a result of storm, fire, or other damage. It includes unused logs, uprooted stumps, broken or uprooted stems, branches, twigs, leaves, bark, and chips.

Slope slump - A slide or earthflow of a soil mass.

Small game - Birds and small mammals normally hunted or trapped.

Snag - A nonliving standing tree. The interior of the snag may be sound or rotted.

Social disruption - The disruption or breaking up of people's lives, especially in their dealings with each other.

Soil Compaction - Reduction of soil volume which results in alternation of soil, chemical, and physical properties.

Soil productivity - The capacity of a soil to produce a specific crop such as fiber, forage, etc., under defined levels of management. Productivity is generally dependent on available soil moisture and nutrients and length of growing season.

Soil profile - A progression of distinct layers of soil from the surface to bedrock.

Soil surveys - Systematic examinations of soils in the field and in laboratories; such examinations are at differing "orders" and interpretation according to their adaptability for various crops, grasses, and trees; there are five classed orders of surveys, with order 1 being the highest intensity through order 5 (lowest intensity).

Special interest area - Areas established and managed for their unique special features.

Special Use Permit - A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose.

Stand (tree stand) - An aggregation of trees or other vegetation occupying a specific area and sufficiently uniform in composition (species), age arrangement, and condition as to be distinguishable from the Forest or other vegetation or other land cover on adjoining areas.

Stand size class - A classification of forest land based on the predominant size of trees present; that is, sawtimber, poletimber, seedling-sapling.

Standard and guideline - A principle requiring a specific level of attainment, a rule to measure against; a mandatory requirement.

State Air Quality Regulations - The legal base for control of air pollution sources in that state. Prescribed burning is generally covered under these regulations.

State Implementation Plan - A State Plan that covers implementation, maintenance, and enforcement of primary and secondary standards in each air quality control region, pursuant to Section 110 of the Clean Air Act.

Strategic minerals - Those minerals of which the U.S. imports 50 percent of more from foreign sources (based on 1978 U.S. Bureau of Mines figures).

Stream - A water course having a distinct natural bed and banks; a permanent source which provides water at least periodically; and at least periodic or seasonal flows at times when other recognized streams in the same area are flowing.

Successional stage - A stage or recognizable condition of a plant community that occurs during its development from bare ground to climax; for example, coniferous forests in the Blue Mountains progress through six recognized stages: grass-forb; shrub-seedling; pole-sapling; young; mature; old growth.

Suitability - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land which may be suitable for a variety of individual or combined management practices.

Supply - A schedule of the quantity of a product or Forest output that will be produced at various prices.

Supply potential - The output production possible from the available resources.

Suppression - An act extinguishing or confining fire.

Surface resources - Renewable resources located on the earth's surface in contrast to ground water and mineral resources located below the earth's surface.

Sustained yield of products and services - The achievement of maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land.

T

Targets - A quantifiable output. Assignments made to the Forest by the Regional Forester.

Temporary road - A road that will be physically obliterated and seeded after its primary use is completed; e.g., spur road for logging.

Thermal cover - Cover used by animals to ameliorate effects of weather; for elk, a stand of coniferous trees 40 feet or taller with an average crown closure or 70 percent or more.

Threatened species - Those plant or animal species likely to become endangered pecies throughout all or a significant portion of their range within the foreseeable future.

Tiering - Refers to the coverage of general matters in broader Environmental Impact Statments (such as National program or policy statements) with subsequent narrower statements or environmental analyses (such as Regional or Basin-wide program statements or ultimately site-specific statements) incorporating, by reference, the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

Timber stand improvement (TSI) - Measures such as thinning, pruning, release cutting, prescribed fire, girdling, weeding, or poisoning of unwanted trees aimed at improving growing condition of the remaining trees.

Tradeoff Evaluation Process (TEP) - A process whereby factors, issues, elements, etc., are evaluated with regard to the tradeoffs that would occur.

Trail maintenance level - One of the categories outlined in the Management Information Handbook describing the type and intensity of maintenance for trails.

Transitory range - Land that is suitable for livestock use of a nonenduring nature over a period of time. For example, on particularly disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.

Travel management - The administrative decisions on the location and timing of road and trail closures.

Treatment area - The site-specific location of a resource improvement activity.

Type conversion - The conversion of the dominant vegetation in an area from forested to nonforested, safebrush to grass, or from one tree species to another.

U

Understory - The trees and other woody species growing under a more-or-less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

Unplanned ignition - A fire started at random by either natural or human causes, or a deliberate incendiary fire.

V

Variety class - A classification system for establishing three visual landscape categories according to the relative importance of the visual features. This classification system is based on the premise that all landscapes have some visual values, but those with the most variety or diversity of visual featres have the greatest potential for high scenic value.

Vegetative management - Activities designed primarily to promote the health of the Forest cover for multiple-use purposes.

Vertical diversity - The diversity in a stand that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation.

Visual absorption capability - The ability of the landscape to conceal evidence of human modifications. Rated as high, moderate, and low.

Viable populations - A number of individuals of a species sufficient to ensure the long-term existence of the species in natural self-sustaining populations adequately distributed throughout their region.

Visitor Information Service (VIS) - Activities which interpret for visitors, in layman's language, Forest management, protection, utilization, and research. It also includes interpreting the local botany, geology, ecology, zoology, history, and archaeology.

Visual quality objective (VQO) - Categories of acceptable landscape alteration measured in degrees of deviation from the natural appearing landscape.

Retention (R) - Ecological change only here.

Partial Retention (PR) - Human activities should not be evident to the casual Forest visitor.

Modification (M) - Human activity may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Maximum Modification (MM) - Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.

Enhancement - A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.

Visual resource - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

VQO - An abbreviation of visual quality objective.

W

Water rights - Rights to divert and use water or to use it in place.

Water yield - The measured output of the Forest's streams.

Water yield increase - Additional water released to the Forest streams as a result of Forest management activities.

Watershed - The entire area that contributes water to a drainage system or stream.

Wetlands - Areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wilderness - Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped Federal land retaining its primieval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of man's activity substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; include at least 5,000 acres or is of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

Under the current management situation, roadless areas will be handled in the

Forest Plan as follows:

1. Nonwilderness roadless areas - On February 1, 1983, the Secretary of Agriculture made a decision to reevaluate RARE II roadless areas as a result of the Ninth Circuit Court of Appeals decision in California v. Block. Pending any legislative changes, the reevaluation will be conducted during the Forest land and resource management planning process and will include, in addition to further planning areas, roadless areas recommended for wilderness in RARE II and areas that were administratively designated for nonwilderness uses. Activities in nonwilderness areas will continue under existing Plans, pending completion of the Forest Plans.

2. Wilderness and primitive areas - These areas will be managed to protect their wilderness characteristics as provided for through the Wilderness Act of 1964 and subsequent designating legislation.

3. Recommended wilderness - These areas have already been recommended as suitable for inclusion as wilderness areas through the RARE II process but will be reevaluated in Forest planning. These areas may be considered for designation by Congress prior to completion of the Forest Plans.

4. Further planning areas - These areas will be considered for wilderness or nonwilderness during the development of Forest Land and Resource Management Plans. Decisions on the suitability or unsuitability of the areas for wilderness designation will be made in the Forest Plan. Suitable areas will be recommended to Congress for inclusion in the National Wilderness Preservation System. (The matter goes before Congress for final decision.) If not found suitable, Congress will be notified by letter of a decision of unsuitability in the Forest Plan. A 90-day waiting period is necessary while Congress is in session before a decision of unsuitability can be implemented.

Interim management direction for recommended wilderness and further planning areas protects their wilderness characteristics until the final decisions are made. The areas are not available for timber harvest, road construction, or other activities that reduce wilderness potential. Entry into the areas for the exploration, development, and production of minerals is permitted under the 1872 mining laws. Mineral leasing in further planning areas includes a stipulation that requires a sequential review and approval of operations. This requires confirmation that succeeding operations are warranted by information collected in the preceding stage.

Wildfire - Any wildland fire that is not a prescribed fire.

Wildlife habitat diversity - The distribution and abundance of different plant and animal communities and species within a specific area.

Window - A critical segment of terrain through which right-of-way could pass in traversing from point of origin to destination.

Withdrawal - An order removing specific land areas from availability for certain uses.

Woodland products - Harvestable items obtained from pinyon-juniper woodlands, such as fuelwood, posts, pine nuts, and Christmas trees. The products can be commercially harvested or taken for personal use.

Work center - A facility where crews assemble and are direct toward their various work assignments. A work center can be located at an administrative site. A work center normally will include storage and warehousing facilities and may include crew housing.

X

Y

Year-round economies - Economies based on employees working year-round as opposed to seasonal employment.

Z

Zone of influence (ZOI) - The area influenced by Forest Service management activities.

Appendix E

APPENDIX E

BIOLOGICAL EVALUATION OF THREATENED AND ENDANGERED SPECIES
HUMBOLDT NATIONAL FOREST

I. Threatened and Endangered Species

The species below are the only Federally classified species which occur on the Humboldt National Forest:

> Bald Eagle (Haliaeetus leucocephalus), Peregrine Falcon (Falco peregrines), Lahontan Cutthroat Trout (Salmo clarki henshawi)

II. Occupied Habitat

A. Bald Eagle

The bald eagle is considered an infrequent winter visitor on the Forest. Most use occurs in relation to food sources (waterfowl, rabbits, carrion) located adjacent to the Forest. No critical habitat has been identified on the Forest, and eagles have not been observed on the Forest during their breeding season.

B. Peregrine Falcon

The peregrine falcon is also considered an infrequent winter visitor on the Forest. Historic records indicate that two eyries sites existed in Elko County, although these are presently not active. Currently, a program to establish breeding pairs in Ruby Valley has been initiated by the Nevada Department of Wildlife, U.S. Fish and Wildlife Service, U.S. Forest Service, and the Peregrine Fund. Several sites on the Forest have been identified as potential "hack" sites with the prey base located in the Ruby Marshes and Franklin Lake areas. Establishment of a breeding population of peregrine falcons is listed as an objective in the Peregrine Falcon Recovery Plan.

C. Lahontan Cutthroat Trout

The Lahontan cutthroat trout is known to occur in 41 streams on the Forest and is thought to occur in 20 more streams that have not been surveyed recently.

III. Analysis of Effects

The preferred alternative provides that no timber harvest activity, road construction or campground construction are planned for bald eagle and peregrine falcon habitat throughout the planning horizon. The cooperative effort to reestablish peregrine falcons in Ruby Valley will continue under the preferred alternative.

Lahontan cutthroat trout habitat management will be coordinated with livestock management to maintain or improve existing habitat. Livestock grazing systens, season of use, numbers and distribution will be adjusted to eliminate conflicts. In addition, the Forest will cooperate with the Nevada Department of Wildlife to accomplish objectives identified in the approved Lahontan Cutthroat Trout Fisheries Management Plan.

It is concluded that the preferred alterantive conforms to the requirements of the special recovery plans and is beneficial to the recovery of these Federally listed species. Therefore, the preferred alternative of the Forest Plan will have no adverse effect on these species.

IV. Endangered Species Act Consultation

Formal consultation with the Fish and Wildlife Service regarding biological evaluation of the Forest Plan relative to Section 7 of the Endangered Species Act, as amended, has been completed. Consultation has resulted in an agreement to consult on a project-by-project basis as Plan implementation proceeds. A copy of the Fish and Wildlife Service's letter is included.

V. Reference Material, Etc.

a. Lahontan Cutthroat Trout Fisheries Management Plan
b. Peregrine Falcon Recovery Plan/Pacific Population
c. Pacific States Bald Eagle Recovery Plan

United States Department of the Interior

FISH AND WILDLIFE SERVICE
GREAT BASIN COMPLEX
4600 Kietzke Lane, Building C
Reno, Nevada 89502

F. S. R-4
RECEIVED
JUL 11 1985
WILDLIFE MANAGEMENT

July 9, 1985

In Reply Refer To: 1-5-85-I-19

USFS Ref. 2670

J. S. Tixier, Regional Forester
U.S. Forest Service
U.S. Department of Agriculture
324 25th Street
Ogden, Utah 84401

Dear Mr. Tixier:

Thank you for your May 31, 1985, letter requesting confirmation about compliance to Section 7 of the Endangered Species Act, as amended (ESA), for the Humboldt National Forest Land Management Plan. We will review this plan by September 30, 1985 and provide you with general comments regarding affected endangered, threatened, and candidate species at that time.

We concur with your recommendation that compliance with ESA can best be made by consulting informally on the general plan and consulting formally on a project-by-project basis as implementation of the plan proceeds.

We look forward to working with you on programs to conserve listed and candidate species on Humboldt National Forest lands.

Sincerely,

Richard J. Navarre

Richard J. NaVarre
Complex Manager

Appendix F

APPENDIX F

ECONOMIC AND SOCIAL SETTING

1. Zone of Influence

The Humboldt National Forest administers 2.528 million acres of land in 5 counties in the State of Nevada. These counties are: Elko, Humboldt, Lincoln, Nye, and White Pine. In initially formulating the zone of influence (ZOI), commodity outputs were used as a basis for delineation. Using this criterion, Twin Falls and Owyhee Counties in Idaho and Millard County in Utah would be included because several livestock permittees reside in these counties. However, the effects of Forest actions by the Humboldt National Forest appear to have minimal impacts on the overall population and economy of these counties. Therefore, the primary zone of influence will be the 5 counties in Nevada that actually contain Humboldt National Forest Lands.

Nevada is commonly thought of as a rural state because of its low population density (7.2 people per square mile). However, in 1970 the state ranked 8th in the United States in the percentage of population residing in urban areas with 80.9 percent. This percent increased in 1980 to 85.3 percent.

The primary zone of influence shows a slightly different picture, though. The population density is 1.0 or less for each of the counties, and the population in the ZOI is 37 percent urban. (Lincoln and Nye Counties are 100 percent rural, Ellko is 51 percent urban, Humboldt is 44 percent urban and White Pine is 60 percent urban.)

The counties in the ZOI also have a very high percentage of its acreage administered by the Federal government. Elko County has the lowest percentage of 71.5 percent, while Lincoln County has the highest with 96.5 percent.

Most of the settled portions of the ZOI are considered semi-arid and have a climate that produces a relatively short growing season. This combination limits crop production and the major portion of local and state agriculture revolves around livestock and forage production. The arid nature also precludes large scale industrial development.

This area has historically had two base industries, mining and agriculture. Through the years, tourism, service, and government have increased in importance. Mining has been associated with "boom or bust" and during the past few years, livestock ranching has also experienced this instability.

Although agriculture is a relatively small component of the State's economy, it is still a significant source of income and employment. In 1978, the ZOI provided 41.3 percent of the State's total agricultural market value. Of this, 64 percent of the value was in livestock products.

Geographic Units of Analysis

Due to the scattered nature of the Forest and the impacts that Forest Service actions have on the different counties and communities, the ZOI was divided into four units of analysis: Elko County, Humboldt County, White Pine County, and Lincoln and Nye Counties.

Elko County

Elko is the second largest county in the state. The largest town in the county is Elko.

Historically, railroading, agriculture and mining were the principal county industries. However, in recent years tourism and government have displaced the relative importance of the railroads. Mining has again come in the forefront and although agriculture has recently gone through bad times, it still retains its prominence.

Generally, the Forest Service has relatively little impact on this county. It is estimated, from an input/output computer model called IMPLAN, that 4.94 percent of tne people employed in this area depend upon outputs from Forest Service lands. The income earned by them is only 4.66 percent of the total income. (This was determined by comparing the projected 1990 Forest outputs with the 1977 data base provided by IMPLAN.) These estimates do not include Forest Service employee expenditures in the local communities.

Approximately half of all jobs dependent upon Forest Service actions are direcly or indirectly related to livestock grazing. Any significant decrease in the number of AUMs allowed to graze in this county could seriously affect the communities of Mountain City and Lamoille. Wells, Nevada would be affected, but not as seriously; and individuals in the town of Elko would be affected, but the overall economy would not.

Hunting and fishing opportunities have little effect on communities, but may effect certain service-oriented businesses in some of the communities.

The developed recreation opportunities have little impact on the area in terms of employment, but many people in the communities of Lamoille, Wells, Jarbidge, and Elko depend on the Forest for their leisure activities.

Of the Forest outputs that affect employment in local communities, dispersed recreation has the second highest impact next to grazing. However, its impact is not significant when compared to the total county employment. It does affect certain service-oriented business though. The community of Jarbidge is very dependent upon dispersed recreation users, and Elko, Wells, Lamoille, and Mountain City all have people who rely on the Forest for their leisure activities.

The residents of Jarbidge, Mountain City, and Lamoille also rely heavily on fuelwood from the Forest for their heating needs.

Humboldt County

The major community in Humboldt County is Winnemucca. Originally, this county was supported by mining, but as the ore was depleted, agriculture and services became predominant.

The impacts of National Forest System (NFS) management is relatively minimal when compared to the whole county. It is estimated that 2.78 percent of the people employed in this area depend upon outputs from Forest Service lands. The income earned by them is only 3.06 percent of the total income.

The grazing opportunities affect the greatest amount of people, and all other outputs have little or no impact on the area. The community of Paradise Valley is very dependent upon the grazing opportunities provided by the Forest Service and any change in this output could seriously affect this community. McDermitt, Nevada would also be somewhat affected if there were any change in this output.

The residents of Paradise Valley are also somewhat dependent upon the Forest's dispersed recreation opportunities for thier leisure activities.

White Pine County

In the early 1900's, the Kennicott Copper Corporation began mining operations near Ely and it soon became the major industry. This area was one of the largest copper producing areas in the nation. However, the operations closed down in 1976, leading to a loss in population which has not yet rebounded.

This situation should change, in that an anticipated power generation plant would bring a halt to the decline in population and increase overall recreational use.

The impacts of National Forest System management is fairly insignificant when compared to the whole county. It is estimated that only 2.53 percent of the people employed in this area depend upon outputs from NFS lands, resulting in 1.99 percent of the total income.

The number of jobs that are dependent upon dispersed recreation users is greater than the number depending upon the grazing use. All the other outputs have little or no affect on employment in the area, although different service-oriented businesses may be affected.

The communities of Baker and Lund are somewhat dependent upon the grazing activities that occur on the Forest. The residents of Baker also rely fairly heavily on fuelwood from the Forest for their heating needs.

The residents of Ely, Ruth, and McGill place somewhat of a demand on the Forest to supply fuelwood, and also are fairly heavy users of the developed recreation sites in the area.

Many service-oriented businesses of Baker depend on the dispersed recreation users, of which a significant number are actual residents. Ely is another town whose residents depend upon the dispersed recreation opportunities of the Forest for their leisure activities.

Lincoln and Nye Counties

Mining and railroad activities used to play a prominent part in Lincoln County's economy. However, both of these sectors faltered in the 1950's, and today the most important activity is government, reflecting the presence of the Air Force and other Federal agencies.

Nye County is the largest county in the state. The Humboldt National Forest affects only the eastern portion of the county, while the Toiyabe National Forest affects a much greater portion of it. Like Lincoln County, the principle industry used to be mining, but the leading sectors are now service and government.

The impacts of the Humboldt National Forest on this area is very insignificant, with an estimated 0.1 percent of the employment and 0.08 percent of the income being effected by Forest actions. The only real impact would be on a few ranchers who use the Forest land to graze their livestock.

2. Variables and Social Units of Analysis

The outputs produced by the Humboldt National Forest affect different groups of people. Six different groups have been identified for purposes of analyzing the effects that different management alternatives will have on the people in the ZOI. These groups (or social units) are ranchers, farmers, miners, recreation users (tourists, hunters, and fishermen), Native Americans, fuelwood cutters, and local businessmen. (Note: The reader should keep in mind that the following descriptions of each social group are generalized statements, and do not apply to every individual in the group.)

Ranchers/Farmers

These people tend to be residents whose family ties to the area often go back several generations and whose values are greatly influenced by the pioneers/settlers of the West. They are likely to be conservative, show concern for neighbors, respect the land, and have a strong desire to maintain their independence.

Maintaining their lifestyles is the most important variable for this group. Living in rural areas, being able to work with the land and having sufficient resources for the future is also important. They want to be their own boss, control their own lives, and reduce any governmental interference.

Usually, they are well-respected community members and are often active in state and local politicts.

Miners

The miners are often seen as hard-living/hard-working people who generally view the utility of the Forest resources from a consumptive rather than an amenity perspective, although many are concerned about the quality of the environment.

They place a high importance on being self-sufficient, independent, and limiting government control. Community cohesion is not an important variable for them, but having sufficient resources now and in the future to maintain their particular lifestyles is important.

Recreation Users

This group is independent and desires to control one's own life. Community cohesion (getting involved in local politics and living where there are people like themselves) is not as important as being self-reliant.

Living in uncrowded areas is of only moderate importance to them, but being able to go to an uncrowded place and enjoy the amenitites that a National Forest has to offer is very important to them.

Native Americans

There are nine Indian reservations or colonies within the ZOI, making up 6 percent of the populaiton. They are primarily associated with the Forest Service through its grazing permits.

This group places a great deal of importance on being independent, maintaining their lifestyles, and maintaining their family ties and traditions.

They have a high respect for the land and place more importance on the consumptive uses of the land: i.e., hunting, fishing, grazing, firewood cutting, than the amenity values that the Forest has to offer. Any government interference to their uses of the land would be strongly resisted.

Fuelwood Cutters

This group is comprised of people who are generally between the ages of 25 and 45 years old, many of whom use firewood as their primary source of heat.

Being self-reliant is very important to this group, but community cohesion is of only moderate importance. They like living near public lands so that they can have easy access to the natural resources, and they place high importance on recreating and working in an uncrowded, natural setting.

Local Businessmen

These people are very interested in community affairs and are involved in the political process. Many are considered to be independent and conservative. They attach a great deal of importance to limiting government control, being free and self-sufficient. They are concerned with living in a community that works together to accomplish goals, and feeling like they really belong in a community.

With the exception of young and recreation-oriented businessmen, many business people tend to be more interested in the commodity rather than the amenity values of the land.

The ZOI Populations

In general, most ZOI residents may be characterized as having a conservative, individualistic and self-sufficient outlook. The emphasis on the ability to pursue a particular lifestyle with a minimum level of interference reflects the situation in which the vast majority of the land and natural resources is controlled externally by government agencies.

While economic growth is encouraged, various levels of growth are seen as having both positive and negative effects. Government regulations which would restrict the use of land for grazing or mineral extraction are regarded as threatening by the majority of residents.

3. Past Trends: Population, Employment, Income, and Payments to Counties

The population of the ZOI has increased at an average annual rate of 1.2 percent for the years 1960-1970 and 2.1 percent from 1970 to 1980. However, total income has increased at an average annual rate of 3.86 percent for the years 1970-1979. (See Table 1A).

The ZOI has historically had two base industries, mining and agriculture. Agriculture consists predominantly of livestock and forage production while mining is the hardrock variety. Within the last 30 years, government and tourism have become important, and today, services, government, and trade rank 1, 2, and 3 in terms of employment and personal income. In fact, they contribute to over 60 percent of the employment and personal income of the ZOI.

The markets for agriculture and mining exist out of the area and are dependent on prices established by national demands. All this does not provide the diversity necessary for a stable economy.

The agriculture sector provides a significant source of income for the ZOI, but the number of farm proprietors has been decreasing. On the other hand, the number of wage and salary workers on farms has been increasing and then leveled out in the years 1977-1979. Employment in the agriculture services, forestry and fisheries sector has stayed around 70 people over the years.

Due to the semi-arid climate, livestock and forage production are the most important agricultural products. In 1981, 53 percent of the cattle and calves and 54 percent of the sheep and lambs in the entire state were produced in the ZOI.

TABLE 1A
ECONOMIC INDICATORS - PAST TRENDS
(Dollar Values are in Terms of First Quarter, 1982 Dollars)

For: Elko, Humboldt, Lincoln, Nye, and White Pine Counties in Nevada

	Year		
	1960	1970	1980
Population (M Persons) (Census of Population & Housing)	34.332	38.639	47.650

	Year			
	1967	1970	1977	1979
Population (M Persons) 1/	37.6	38.4	40.2	43.5
Income (MM$) 1/	280.349	329.934	387.515	466.976
Employment (M Persons) 1/ *	22.227	21.885	22.742	24.623
Agriculture	1.840	1.940	1.806	1.796
Non-Farm Proprietors	1.196	1.290	1.522	1.584
Non-Agric. Wage & Salary				
Mining	1.593	1.893	1.650	1.628
Construction	.521	.510	.531	1.111
Manufacturing	.373	.507	.597	.844
T.C.P.U.	.992	.957	1.235	1.320
Trade	2.405	2.619	3.373	3.611
F.I.R.E.	.263	.234	.372	.685
Services	9.189	7.711	6.804	7.214
Government	3.598	3.903	4.347	4.4779
Payments in Lieu of Taxes (M$) 2/	N/A	N/A	263.95	197.36
Payments under 25% Fund (M$) 3/	N/A	N/A	N/A	87.78

1/ Source: Bureau of Economic Analysis, Regional Economic Information System.
2/ Source: Department of Interior
3/ Source: Fiscal and Accounting Management, Region 4, U.S. Forest Service

* Totals may not be accurate due to the non-disclosure of confidential data.

Tourism will continue to increase, especially since the ZOI is located along the main route to and from California. Gaming will remain the largest benefactor, but the natural resource opportunities are receiving more attention. As yet, the area's full recreation potential has not been reached.

The manufacturing sector has one of the lowest number of people employed in it. The 30 establishments recorded in 1977 comprise only 4 percent of the state's total. Distances from markets with the accompanying high transportation costs will continue to be a limiting factor to any growth of this industry.

The government sector is a strong employer in the ZOI. Between 1967 and 1979, total government employment in the area increased 33 percent. Of this, Federal civilian employment increased only .3 percent while state and local government increased 45 percent. In 1979, federal civilian employment accounted for 15 percent of the total government employment, which is down from 20 percent in 1967.

4. Baseline Projections: Population, Employment, Income, and Payments to Counties.

The population is projected to increase by an average annual rate of 2% from 1980 to 1990 and 1.9 percent from 1990 to 2000. Total income is projected to increase at an average annual rate of 5.25 percent from 1979 to 1990 and 4.0 percent from 1990 to 2000 (See Table 1B).

Employment in the agriculture sector is expected to follow the past trends of decreasing farm proprietors, slight increases in the wage and salary jobs of farm workers, and a stable number of workers in agricultural services.

TABLE 1B
ECONOMIC INDICATORS - BASELINE PROJECTIONS
(Dollar Values Are in Terms of First Quarter, 1982 Dollars)

For: Elko, Humboldt, Lincoln, Nye, and White Pine Counties in Nevada

	Year			
	1985	1990	1995	2000
Population (M Persons) 1/	52.740	58.373	64.115	70.425
Income (MM$) 2/	654.352	832.265	1015.164	1238.433
Employment (M Persons) 3/	28.008	30.270		
Agriculture	1.848	1.858		
Non-Farm Proprietors	2.427	2.654		
Non-Agric. Wage & Salary	23.733	25.758		
Mining	1.958	1.923		
Construction	.911	1.004		
Manufacturing	.669	.665		
T.C.P.U.	1.414	1.491		
Trade	4.665	5.181		
F.I.R.E.	.596	.673		
Services	8.701	9.522		
Government	4.819	5.299		
Payments in Lieu of Taxes (M$)	N/A	N/A		
Payments under 25% Fund (M$)				

1/ Population projections are the average of projections from the U.N.R. and S.P.C., adjusted by the ratio of 1980 projections to the 1980 census count.

2/ Income projections were developed from Bureau of Economic Analysis estimates of the Average Annual Rates of Growth of Real Per Capita Income for the United States.

3/ Nevada's Demographic and Economic Impact Simulation Model - Model Description and Baseline Projections, Govenor's Office of Planning Coordination, December 1978.

The number of people classified as non-farm proprietors jumped significantly from 1979 to 1985. While an increase is projected, the magnitude of this increase is probably over estimated due to the fact that the 1979 and 1985 figures come from two different sources, and their accounting techniques probably varied.

While mining employment has decreased in the past, it is projected to increase in the near future. There is the possibility of several small mines (8-10) opening within the next 5-10 years and a few (3-5) large mines developing in this time frame. The major commodities of interst are gold, silver, molybdenum, tungsten, and barite with by-products of lead and zinc.

Energy exploration will also increase significantly in the next 5 years. Oil and gas exploration will be the major threat with geothermal increasing in the 1990 decade.

The construction sector is projected to show slight decreases and the manufacturing sector shows a decline. (The manufacturing projections may be underestimated in that they were developed in 1978, and there was a significant increase in this sector in Humboldt and Elko Counties during the period 1977 to 1979.) The finance, insurance, and real estate (F.I.R.E.) sector shows a similar trend (and problem) as the manufacturing sector.

The transportaiton, communications, and public utilities (T.C.P.U.) sector shows a steady increase along with the government sector. While the trade sector and the services sector both show significant increases in the near future.

Generally, it appears that the existing top three employment sectors of services, government, and trade will stay that way in the near future, with mining and agriculture still playing significant roles in the structure of the local economies.

Appendix G

APPENDIX G
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Appendix H

APPENDIX H

SPECIAL STIPULATIONS FOR FOREST SERVICE MINERAL LEASES

The following special stipulations are in addition to the lease terms and standard stipulations (forms 3109-5, 3109-3, and Forest Service supplement to 3109-3), and are necessary to protect specific resource values on the lease area. If found to be in the public interest, these stipulations may be made less restrictive when specifically approved in writing by the District Engineer, Geological Survey (GS), and the authorized officer of the Federal surface management agency.

1. All of the land in this lease is included in (recreation or special area, etc.). Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may exploit the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, or by the Forest Service, a permit for use of the site must be obtained from the BLM District Manager or the Forest Service District Ranger, before drilling or other development begins. (Note: Use of stipulation requires GS concurrence.)

2. No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the (road, lake, river, etc.). (Note: Use of stipulation requires GS concurrence.).

3. No occupancy or other activity on the surface of (legal subdivision) is alllowed under this lease.

4. No occupancy or other surface disturbance will be allowed within _____ feet of the _____ (road, trail, river, creek, canal, etc.). This distance may be modified when specifically approved in writing by the District Engineer of the Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

5. No drilling or storage facilities will be allowed within _____ feet of (live water, the reservoir, the archaeological site, the historical site, the paleontological site, etc.) located in (legal subdivision). This distance may be modified when specifically approved in writing by the District Engineer of the U.S. Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

6. No occupancy or other surface disturbance will be allowed on slopes in excess of _____ percent, without written permission from the District Engineer of the U.S. Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

7. In order to (minimize watershed damage, protect important seasonal wildlife habitat, etc.) exploration, drilling, and other development activity will be allowed only (during the period from _____ to _____, during dry soil period, over a snow cover, on frozen ground). This limitation does not apply to maintenance and operation of producing wells. Exceptions to

READEX FICHE

this limitation in any year may be specifically authorized in writing by the District Engineer of the U.S. Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

8. In order to minimize watershed damage, during muddy and/or wet periods, the authorized officer of the Federal surface management agency, through the District Engineer of the U.S. Geological Survey, may prohibit exploration, drilling, or other development. This limitation does not apply to maintenance and operation of producing wells.

9. The _____ (Trail/Road) will not be used as an access road for activities on this lease, except as follows: (No exceptions, weekdays during recreation season, etc.).

10. To maintain esthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint selection or method of camouflage will be subject to approval by the District Engineer of the Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

11. No occupancy or other activity on the surface of the following described lands is allowed under this lease:

Reasons for this restriction are:

Examples of appropriate reasons for this restriction are:

1. Steep slopes.
2. Specific ecosystems, ecological land unit, land type of geologic formation which presents hazards such as mass failure.
3. Roadless or essentially roadless area (includes Chevron and Rainbow stipulations).
4. Special management units such as: Recreation Type I, water supply, administrative site, etc.

( ) Approximately % of lease

Note: This stipulation could be used in place of stipulations Nos. 1, 3, and 6.

12. No _____ will be allowed within _____ feet of the _____. This area contains _____ acres and is described as follows:

Reasons:

First blank to be filled in with one or more of the following: drilling, storage, facilities, surface disturbance, or occupancy. Second and third blanks to be filled in with one or more of the following:

1. _____ feet wildlife habitat essential to specific species.
2. _____ feet peripheral or unique vegetation type.
3. 200 feet either side of centerline of roads or highways.
4. 500 feet of normal high waterline on all streams, rivers, ponds, reservoirs, or lakes.
5. 600 feet of all springs.
6. 400 feet of any improvements.

Note: Stipulation no. 12 could be used in place of stipulation numbers 4 and 5 to eliminate that line.

13. In order to (minimize) (protect) _________, ____________ will be allowed only during _______________. This does not apply to maintenance and operation of producing wells and facilities. Lands within leased area to which this stipulation applies are described as follows:

Reasons:

First blank to be filled in with one or more of the following:

1. Watershed damage.
2. Soil erosion.
3. Seasonal wildlife habitat (winter range, calving/lambing area, etc.).
4. Conflict with recreation.

Second blank to be filled in with one or more of the following:

1. Surface disturbing activities.
2. Exploration.
3. Drilling.
4. Development.

Third blank to be filled in with one or more of the following:

1. Period from _____ to _____.
2. Dry soil periods.
3. Over the snow
4. Frozen ground.

Note: Stipulation No. 13 could be used in place of stipulation no. 7, giving greater definition as to restriction.

14. Controlled or Limited Surface Stipulation. This stipulation may be modified when specifically approved in writing by the District Engineer, Geological Survey, with concurrence of the Federal surface management agency. Distances and/or time periods may be made less restrictive depending on the actual on ground conditions.

The lessee/operator is given notice that all or portions of the lease area may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources. Any surface use or occupancy within such special areas will be strictly controlled or, if necessary, excluded. Use or occupancy will be authorized only when the lessee/operator demonstrates that the special area is essential for operations in accordance with a surface use and operations plan which is satisfactory to the Geological Survey and the Federal surface management agency for the protection of such special areas and existing or planned uses. Appropriate modifications to imposed restrictions will be made for the maintenance and operation of producing oil and gas wells; however, in extremely critical situations, occupancy may only be allowed in emergencies.

After the Federal surface management agency has been advised of specific proposed surface use or occupancy on these lands, and on request of the lessee/operator, the agency will furnish more specific locations and additional information on such special areas which now include:

(Legal land description to lot and/or quarter, quarter section.)

Reason for Restriction:

Duration of Restriction: (year-round, month(s)).

15. Activity Coordination Stipulation. This lease includes lands within ________ * which has resource values sensitive to high levels of activity. In order to minimize impacts to these resources, special conditions, such as unitization prior to approval of operations, and/or other limitations to spread surface disturbance activities over time and space may be required prior to approval and commencement of any operations on the lease.

* Wilderness Areas, Further Planning Areas, Areas of Threatened and Endangered Species.

16. Protection of Endangered or Threatened Species. The Federal surface Management Agency is responsible for assuring that the area to be disturbed is examined, prior to undertaking any surface-disturbing activities on lands covered by this lease, to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. If the findings of this examination determine that the operation may detrimentally affect an endangered or threatened species, some restrictions to the operator's plans or even disallowances of use may result.

The lessee/operator may, at his discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by the surface management agency. An acceptable report must be provided to the surface management agency identifying the anticipated effects of the proposed action on endangered or threatened species or their habitat.

TABLE H-1
Special Stipulations for Mineral Leases

U.S. Forest Service Standard Stipulations	High Use Recreation Area	Steep Slopes	Riparian Areas	Key Wildlife Habitat	T&E Habitat	Administrative Sites	Research Natural Areas	Cultural Resources	Municipal (Culinary) Watersheds	Scenic Areas	Significant Primitive Values	Ecological Areas	Unstable Soils
1. No occupancy/disturbance for [rec./special area/etc.]*	X									X			
2. No facilities viewed from [road/lake/etc.]*										X			
3. No surface occupancy		X	X			X	X		X				
4. No occupancy/disturbance within [__] feet of [rd./tr./creek/etc.]	X		X	X							X		
5. No drilling/facilities with [__] feet of [live water/archaeological/etc.]*	X		X	X				X	X		X		
6. No occupancy/disturbance, steep slopes		X											
7. Exploration/development allowed [specific time/over snow/etc.]*				X									X
8. Prohibit exploration development for watershed damage									X				
9. Limits use of roads/trails	X					X							
10. Esthetic painting of facilities	X									X			
11. No occupancy/activity for [steep slope/ecosystem/etc.]*	X	X	X	X		X	X		X			X	

TABLE H-1
Special Stipulations for Mineral Leases
(Continued)

U.S. Forest Service Standard Stipulations	High Use Recreation Area	Steep Slopes	Riparian Areas	Key Wildlife Habitat	T&E Habitat	Administrative Sites	Research Natural Areas	Cultural Resources	Municipal (Culinary) Watersheds	Scenic Areas	Significant Primitive Values	Ecological Areas	Unstable Soils
12. No [state activity] allowed because of [wildlife/imprmt/etc.]*	X		X	X	X				X		X		
13. To protect [state activity] allow [type of activity] during [state time period]*	X			X					X	X			X
14. Controlled/limited surface use	X						X	X	X	X	X	X	
15. Activity coordination	X			X	X		X	X	X	X			
16. Protect T&E species					X								

*To be completed when lease is issued.

Appendix I

APPENDIX I
SPECIAL STIPULATIONS FOR RECREATION RESIDENCES

The Humboldt National Forest receives requests from permittees who want to alter or add on to their existing recreation residences. The following guidelines provide a framework for responding to requests. Existing conditions which vary from this guideline are exempt from this direction.

- Allow porch additions.
- Allow screening in of porches.
- Allow the addition of a fireplace.
- Allow the addition of a bathroom but require conformance with county health and sanitation regulations.
- Allow remodeling of the structure. Exterior remodeling will preserve the aesthetic qualities of the area.
- Allow stairs and walks.
- Allow rustic patios.
- Allow no more than one small storage building (10' X 12' X 8' high).
- Allow planting of native vegetation needed for ground cover, screening and shade.
- Place new or rebuilt utilities underground.
- Paint structures a color which blends with the natural setting.
- Do not allow boarding up of porches.
- Do not allow adding rooms to structures already greater than 1,000 square feet.
- Do not allow removal of the roof and construction of an additional story.
- Do not allow the addition of a garage.
- Do not allow the addition of a sleeping cabin.
- Do not allow vegetable gardens.
- Do not allow painted rocks, bright decorations, etc.
- Urban-like flower beds and mowed planted lawns are undesirable.
- Mowing of natural vegetation is allowed.

Appendix J

APPENDIX J

GUIDE FOR RATING SOILS ACCORDING TO THEIR RELATIVE SUITABILITY FOR RANGE SEEDINGS IN NEVADA

SOIL PROPERTY	GOOD	FAIR	POOR
Moisture regime	Aquatic, xeric, ustic, and xeric and ustic bordering on aridic or torric	Aridic and torric bordering on aquic, xeric or ustic	Aridic and torric
Effective moisture 1/	>10 ins. (25 cm)	7-10 ins. (17.5-25 cm)	<7 ins. (17.5 cm)
Available water capacity	Surface 10 ins. (27 cm) >1.25 ins. (3.2 cm). Soil profile >4 ins. (10.2 cm)	Surface 10 ins. (25 cm) 0.75-1.25 ins. (1.9-3.2 cm). Soil profile 2.5-4 ins. (6.4-10.2 cm)	Surface 10 ins. (25 cm) <0.75 ins. (1.0 cm). Soil profile <2-5 ins. (6.4 cm)
Texture surface 7 ins. (17.5 cm)	LVFS, COSL, SL, FSL VFSL, L SIL, SCL, and CL SICL with <35% C	VFS, LFS, SC, SIC, C and CL and SICL with >35% C	LS, LCOS, FS, COS
Rock fragments in surface 7 ins. (17.5 cm)	GR <35%; CB <15%; ST <3%. Total rock fragments <35%	GR <35%; CB 15-35%; ST 3-15%. Total rock fragments <35%	GR >35%; CB 35%; ST >15%. Total rock fragments >35%
Depth to abrupt A-B texture boundary, 2/	>10 ins. (25 cm)	>10 ins. (25 cm)	<10 ins. (25 cm)
Depth to bedrock or hardpan	>20 ins. (50 cm)	10-20 ins. (25-50 cm)	<10 ins. (25 cm)
Electrical conductivity saturation extract - 25 degrees centigrade	<2 mmhos/cm (0.2 s/m) in upper 20 ins. (50 cm)	2-4 mmhos/cm (0.2-0.4 s/m) in upper 10 ins. (25 cm) and 4-8 mmhos /cm (0.4-0.8 s.m) in 10-20 ins. (25-50 cm)	>4 mmhos/cm (0.4. s/m) in upper 10 ins. (25 cm) and/or >8 mmhos/cm (0.8 s/m) in 10-20 ins (25-50 cm)
Sodium adsorption ratio	<8 in upper 20 ins. (50 cm)	8-13 in upper 10 ins. (25 cm) and <20 in 10-20 ins. (25-50 cm)	>13 in upper 10 ins. (25 cm) and/or >20 in 10-20 ins. (25-50 cm)
K x % slope 3/	<4 4/; <6 5/	4-6 4/; 6-8 5/	>6 4/; >8 5/
X x C 6/	<60	<60	>60
Soil surface morphological types 7/.	Type I & II >60%; Type IV <5%, or with mollic epipedon 8/	Types I & II 20-60%; Type IV <10% 8/.	Type III <60%; Type IV > 10% 8/.

1/ Moisture from precipitation, run-off, and groundwater budgeted to actual evapotranspiration.

2/ Rate Vertisoles and Vertic subgroups as poor.

3/ Sheet and rill erosion hazard (bare soil).

4/ For ustic bordering on aridic or toric and aridic or toric bordering on ustic moisture regimes.

5/ For xeric, xeric bordering on aridic or toric, and aridic or toric bordering on xeric moisture regimes.

6/ Wind erosion hazard (bare soil).

7/ See: (1) Final report. Properties, Occurence and Management of Soils with Vesicular Surface Horizons, 1977. Contract No. 52500-CT 5(N). USDI-BLM and UNR-Ag. Exp. Sta. Eckert, Peterson, Wood, and Blackburn; and (2) Final Report. Properties, Occurence and Management of Soils with Vescicular Surface Horizons - Effects of Trampling on Seedling Emergence. 1979. Contract No. TA 512-CT 7-14. USDI-BLM and UNR-Ag. Exp. Sta. Stephens, Eckert, and Peterson.

8/ Soils without crusting morphology are to be included in Types I and II for rating.

Appendix K

APPENDIX K

HUMBOLDT DESIGN CRITERIA FOR LOW STANDARD ACCESS ROADS

This test is intended as a general guide and does not propose to establish rigid philosophy or procedures. The information suggests some basic design criteria. There will be situations that may require deviations from these guidelines due to the terrain, resource activity or management use of the road. Such deviations shall be noted in the appropriate environmental document for the project.

Project Planning: Transportation analysis shall be an integral part of all project planning related to access needs. Alternative road locations and standards shall be evaluated and the selected location and standard identified in the appropriate environmental document prior to any survey or design work on the project.

Location and Design: The location, design, plans and specifications for a project shall be completed and approved in writing before any construction activity begins. Roads would normally be located on side slopes of less than 50 percent. Both the vertical and horizontal alignment of the road should conform to the existing terrain, utilizing ridges and natural benches whenever possible. Sustained road gradients for long-term use roads would normally be under 8 percent though short pitches of 10 percent over a length of 300 feet may be approved.

Road grades greater than 10 percent may be approved for temporary or short-term use roads, such as mineral exploration roads. Approval for the higher grades would be based on road use, construction and user costs and the environmental impacts of the steeper grade compared to flatter grades.

Riparian areas will not be crossed if they can possibly be avoided. Appropriate mitigative measures shall be taken to ensure road stability when the riparian areas cannot be avoided.

Bridges and culverts when used at stream and drainage crossings, shall provide for the passage of fish, if applicable. Fords may be used for crossings at appropriate sites where they are specifically authorized. The minimum culvert size for a long-term use road is 18 inches in diameter.

All roads shall be adequately drained. Road drainage will be routed to minimize stream sedimentation. Where possible, road drainage will be routed onto flat ground for deposit of sediment. On steep ground, established channels shall be used when required to prevent establishement of new erosion channels.

The recommended drainage dip spacing for all roads is shown in the table below:

Road Grade	Recommended Dip Spacing
0 - 4 %	None
4 - 6 %	600 Feet
6 - 8 %	400 Feet
8 - 10 %	300 Feet
10 - 12 %	200 Feet
Above 12 %	100 Feet

Construction and Reconstruction: All roads shall be constructed along the planned route and ground disturbance will be confined to the road right-of-way and approved borrow areas. Cut and fill slopes will be constructed at slopes flatter than 1 1/2 (horizontal) to 1 (vertical) where practical on the long term use roads to aid in revegetation. Cut and fill slopes on short-term roads, such as mineral exploration roads may have steeper slopes to minimize disturbance and aid in reclamation. All disturbed soil areas and cut and fill slopes shall be seeded with approved plant species.

* U.S. GOVERNMENT PRINTING OFFICE:1986- [illegible]